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May 20, 2016

Dakota Plains Ag Center
41055 282nd St.
Parkston, SD 57366

Re: Dakota Plains AG Facility
Utica, SD

Sirs,

Please see our responses below to the questions in the Interrogatories and Requests that you provided us dated May 13th, 2016.

- 4. 2906.5HP, 2,280KW

- 5.a. 504.07KW
- 5.b. 473.71KW
- 5.c. 444.47KW
- 5.d. 582.63KW
- 5.e. 158.9KW
- 5.f. 4.48KW
- 5.g. 49.74KW, Maint. Bldg. – 10.5KW, Office/Scale House – 42KW

- 6.a. 481.69KW
- 6.b. 468.11KW
- 6.c. 426.68KW
- 6.d. 578.15KW
- 6.e. 158.19KW
- 6.f. 4.48KW
- 6.g. 49.74KW, Maint. Bldg. – 8KW, Office/Scale House – 25KW

7. The electrical loads and controls system were reviewed. We determined that there are loads that are interlocked so that they cannot be operated together and these were removed for items 6.a. thru 6.f.. The design of the facility is such that it is capable of operating at full capacity to maximize the intake, processing shipping of grain. There a multitude of variables that make it impossible to determine an accurate demand beyond a full load condition. The maintenance

5.11.10

building and the office/scale house loads were diversified as allowed by the national electrical code.

8. There are some motorized gates that are interlocked so that only one gate can be operated at once time. These are the loads that were removed from the totals listed in #5 and listed in #6.

9. It is our opinion that trying to determine electrical demands on a monthly basis would not be practical as there are too many variables to provide you with an accurate demand over the course of a year.

10. See answer in #9.

11. See answer in #9.

We do not have the information to respond to answers to #12 thru #15.

If questions, please feel free to contact me (605) 941-3337.

Sincerely,

Dan E. Mutschelknaus, P.E.
Professional Design Engineers

PRELIMINARY MOTOR AND DEVICE LIST

Owner: Dakota Plains Ag Center, LLC
 Location: Utica, SD
 Project Number
 Date: December 4, 2015
 Revision: N

Rev, Del & Add	REV NO.	PREFIX	NUMBER	QTY	DESCRIPTION- Concrete 6-pack, (4) Interstice Bins 1/10 CFM on concrete 6-pack & 1 Ground Pile & a 10,000 BPH dryer system	MANUFACTURER	P.O.#	MODEL No. & SIZE	DESIGN/ CAPACITY/ CONSTRUCTION	HP	SUPPLY VOLTS	OUTPUT SIGNAL
					RECEIVING & DISTRIBUTION SYSTEM				Capacities listed are based upon Whole Grains up to 60 lbs/bu			
					TRUCK RECEIVING PIT #1 - 40,000 BPH							
		SB	101A	1	Truck Receiving pit grate, 12'-0" wide x 26'-0" long grate. Dust baffles below receiving grate.				Carbon steel construction, painted			
		SB	101B	1	Rail Receiving pit grate, 3'-6" wide x 4'-0" long grate.				Carbon steel construction, painted			
		BC	101	1	Truck & Rail Receiving & Ground Pile Transfer Belt Conveyor	HiRoller		Model 42 HiLife	40,000 BPH, 650 FPM max, Drive Shaft 165.52 RPM, single Falk 5207JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal.			
		BC	101.01	1	Electric motor for belt	HiRoller			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, suitable for Class II Group G Div I area classification, located at head.	30.0		
		EPG	101.10	1	Electric proportioning ladder gate for Truck Rec'g Pit	HiRoller		11'-0" long x 3'-2" wide ladder gate	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	101.11	1	Electric Actuator	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	101.12	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	101.13	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Add	N	ZSC	101.14	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Add	N	ZSO	101.15	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		ZT	101.16	1	% Meter	HiRoller			Potentiometer			4-20 ma
		XV	101.30	1	Actuator for two-way head discharge	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	101.31	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	101.32	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Rev	N	ZSC	101.33	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	101.34	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		TE	101.40	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	101.41	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	101.42	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	101.43	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	101.50	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	101.51	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	101.52	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	101.53	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	101.60	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	101.61	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	101.70	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		LSH	101.71	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		CT	101.80	1	Current Transformer	By Electrician						4-20mA
					TRUCK RECEIVING PIT #2 - 20,000 BPH							
		SB	200	1	Truck Receiving pit grate , 12'-0" wide x 26'-0" long grate. Dust baffles below receiving grate.	HCC			Carbon steel construction, painted			
		BC	201	1	Truck Receiving Belt Conveyor	HiRoller		Model 30 HiRoller	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5203JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal.			
		BC	201.01	1	Electric motor for belt	HiRoller			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, suitable for Class II Group G Div I area classification, located at head.	20.0		

PRELIMINARY MOTOR AND DEVICE LIST

Owner: Dakota Plains Ag Center, LLC
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		EPG	201.10	1	Electric proportioning ladder gate for Truck Rec'g Pit	HiRoller		11'-0" long x 3'-2" wide ladder gate	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	201.11	1	Electric Actuator	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	201.12	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	201.13	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Add	N	ZSC	201.14	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Add	N	ZSO	201.15	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		ZT	201.14	1	% Meter	HiRoller			Potentiometer			4-20 ma
		XV	201.30	1	Actuator for two-way head discharge	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	201.31	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	201.32	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Rev	N	ZSC	201.33	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	201.34	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		TE	201.40	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	201.41	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	201.42	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	201.43	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	201.50	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	201.51	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	201.52	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	201.53	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	201.60	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	201.61	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	201.70	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		LSH	201.80	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		CT	201.90	1	Current Transformer	By Electrician						4-20mA
		BE	202	1	Receiving Bucket Elevator	Intersystems		GE4838	20,000 BPH, 683 FPM max, 53.2 RPM, Class V Falk M155VR3-A-32.584:1 drive at head, screw take-up at boot, shovel pockets, inlet, boot & head section lined w/ 1/4" ceramic, explosion panels, 48" dia. pulleys & mechanical belt splice. R&P Cleanout Gates in boot section. Designed for Whole Grains.			
		BE	202.01	1	Electric Motor for Bucket Elevator	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	200.0		
		TE	202.10	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	202.11	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	202.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	202.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	BAS	202.20	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Rev	N	BAS	202.21	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Add	N	BAS	202.22	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Add	N	BAS	202.23	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Rev	N	BAS	202.24	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Rev	N	BAS	202.25	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Add	N	BAS	202.26	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
Add	N	BAS	202.27	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
		SSL	202.30	1	Motion sensor on boot shaft	By Electrician			NEMA 9			
		LSH	202.40	1	Discharge plug sensor	Intersystems		BinMaster 65DFHT DBDT	Plug Switch located in discharge spout			
Rev	N	MG	202.50	1	Manual Magnet with Position Open Switch	Intersystems		SMC06-29"				
Add	N	ZSC	202.51	1	Position Switch Closed	Intersystems			NEMA 9 Limit Switch			
Rev	N	ZSO	202.52	1	Position Switch Open	Intersystems			NEMA 9 Limit Switch			
		CT	202.70	1	Current Transformer	By Electrician						4-20mA
Rev	N	EOV	203	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	203.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	203.11	1	Position Switch Closed	HCC			Go Switch			

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Rev	N	ZSO	- 203.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 203.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 203.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 203.15	1	Position Switch Open	HCC			Go Switch			
Rev	N	EOV	- 204	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 204.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 204.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 204.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 204.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 204.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 204.15	1	Position Switch Open	HCC			Go Switch			
Add	N	EOV	- 205	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Add	N	XV	- 205.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 205.11	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 205.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 205.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 205.14	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 205.15	1	Position Switch Open	HCC			Go Switch			
		SP	- 206	1	Drag Scalper	Ferrell-Ross		Model FMDS-6025	20,000 BPH, Designed for Whole Grains.			
		SP	- 206.01	1	Electric Motor for Scalper	Ferrell-Ross			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	10.0		
Rev	N	EOV	- 207	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 207.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 207.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 207.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 207.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 207.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 207.15	1	Position Switch Open	HCC			Go Switch			
		DC	- 208	1	Concrete Silos Distribution Drag Conveyor	Intersystems		EMC2526-P	20,000 BPH, 137 FPM max, final drive RPM 26.73, single Falk 5507J Class 2 HTD Belt drive at head, Manual take-up at tail, designed for whole grains, conveyor is horizontal			
		DC	- 208.01	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	50.0		
		EG	- 208.05	1	Electric gate for Head Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	- 208.06	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	- 208.07	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	- 208.08	1	Position Switch Open	Intersystems			Limit Switch			
		TE	- 208.10	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	- 208.11	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	- 208.12	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		TE	- 208.13	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
Rev	N	LSH	- 208.14	1	Plug switch on Head section	Intersystems			Go Switch			
		SSL	- 208.15	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		TS	- 208.16	1	Slack chain detector switch	Intersystems			NEMA 9			
		CT	- 208.17	1	Current Transformer	By Electrician						4-20mA

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		EG - 208.20	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.21	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.22	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.23	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.30	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.31	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.32	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.33	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.40	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.41	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.42	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.43	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.50	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.51	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.52	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.53	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.60	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.61	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.62	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.63	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.70	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.71	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.72	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.73	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.80	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.81	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.82	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.83	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.90	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.91	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.92	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.93	1	Position Switch Open	Intersystems			Limit Switch			
		EG - 208.95	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV - 208.96	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC - 208.97	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO - 208.98	1	Position Switch Open	Intersystems			Limit Switch			
				TRUCK RECEIVING PIT #3 - 20,000 BPH							
		H - 300	1	Truck Receiving pit grate , 11'-0" wide x 26'-0" long grate. Dust baffles below receiving grate.				Carbon steel construction, painted			

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		BC - 301	1	Truck Receiving Belt Conveyor	HiRoller		Model 30 HiRoller	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5115JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal.			
		BC - 301.01	1	Electric motor for belt	HiRoller			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, suitable for Class II Group G Div I area classification, located at head.	15.0		
		EPG - 301.10	1	Electric proportioning ladder gate for Truck Rec'g Pit	HiRoller		11'-0" long x 3'-2" wide ladder gate	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV - 301.11	1	Electric Actuator	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC - 301.12	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO - 301.13	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Add	N	ZSC - 301.14	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Add	N	ZSO - 301.15	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		ZT - 301.14	1	% Meter	HiRoller			Potentiometer			4-20 ma
		XV - 301.30	1	Actuator for two-way head discharge	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC - 301.31	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO - 301.32	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Rev	N	ZSC - 301.33	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO - 301.34	1	Position Switch Open	HiRoller		Model 11	Go Switch			
		TE - 301.40	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE - 301.41	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE - 301.42	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE - 301.43	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS - 301.50	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS - 301.51	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS - 301.52	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS - 301.53	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL - 301.60	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL - 301.61	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH - 301.70	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		LSH - 301.80	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		CT - 301.90	1	Current Transformer	By Electrician						4-20mA
		BE - 302	1	Receiving Bucket Elevator	Intersystems		GE4838	20,000 BPH, 683 FPM max, 53.2 RPM, Class V Falk M155VR3-A-32.584:1 drive at head, screw take-up at boot, shovel pockets, inlet, boot & head section lined w/ 1/4" ceramic, explosion panels, 48" dia. pulleys & mechanical belt splice. R&P Cleanout Gates in boot section. Designed for Whole Grains.			
		BE - 302.01	1	Electric Motor for Bucket Elevator	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	200.0		
		TE - 302.10	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE - 302.11	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE - 302.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE - 302.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	BAS - 302.20	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Rev	N	BAS - 302.21	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Add	N	BAS - 302.22	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Add	N	BAS - 302.23	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Rev	N	BAS - 302.24	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Rev	N	BAS - 302.25	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Add	N	BAS - 302.26	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
Add	N	BAS - 302.27	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
		SSL - 302.30	1	Motion sensor on boot shaft	By Electrician			NEMA 9			
		LSH - 302.40	1	Discharge plug sensor	Intersystems		BinMaster 65DFHT DBDT	Plug Switch located in discharge spout			
Rev	N	MG - 302.50	1	Manual Magnet	Intersystems						
Add	N	ZSC - 302.51	1	Position Switch Closed	Intersystems			NEMA 9 Limit Switch			
Rev	N	ZSO - 302.52	1	Position Switch Open	Intersystems			NEMA 9 Limit Switch			
		CT - 302.70	1	Current Transformer	By Electrician						4-20mA

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Add	N	EOV	- 303	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Add	N	XV	- 303.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 303.11	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 303.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 303.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 303.14	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 303.15	1	Position Switch Open	HCC			Go Switch			
Add	N	EOV	- 304	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Add	N	XV	- 304.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 304.11	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 304.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 304.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Add	N	ZSC	- 304.14	1	Position Switch Closed	HCC			Go Switch			
Add	N	ZSO	- 304.15	1	Position Switch Open	HCC			Go Switch			
		GS	- 305	1	Gravity Screener	Intersystems		PC-20000	Screening Capacity 20,000 BPH Internal By-Pass			
		GS	- 305.01	1	Manual internal bypass	Intersystems						
		SP	- 306	1	Drag Scalper	Ferrell-Ross		Model FMDS-6025	20,000 BPH, Designed for Whole Grains.			
		SP	- 306.01	1	Electric Motor for Scalper	Ferrell-Ross			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	10.0		
Rev	N	EOV	- 307	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 307.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 307.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 307.12	1	Position Switch Open	HCC			Go Switch			
Rev	N	XV	- 307.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 307.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 307.15	1	Position Switch Open	HCC			Go Switch			
		DC	- 308	1	Concrete Silos Distribution Drag Conveyor	Intersystems		EMC2526-P	20,000 BPH, 137 FPM max, final drive RPM 26.73, single Falk 5507J Class 2 HTD Belt drive at head, Manual take-up at tail, designed for whole grains, conveyor is horizontal			
		DC	- 308.01	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	50.0		
		EG	- 308.05	1	Electric gate for Head Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	- 308.06	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	- 308.07	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	- 308.08	1	Position Switch Open	Intersystems			Limit Switch			
		TE	- 308.10	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	- 308.11	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	- 308.12	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		TE	- 308.13	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
Rev	N	LSH	- 308.14	1	Plug switch on Head section	Intersystems			Go Switch			
		SSL	- 308.15	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		TS	- 308.16	1	Stack chain detector switch	Intersystems			NEMA 9			
		CT	- 308.17	1	Current Transformer	By Electrician						4-20mA
		EG	- 308.20	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			

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		XV	308.21	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.22	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.23	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.30	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.31	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.32	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.33	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.40	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.41	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.42	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.43	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.50	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.51	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.52	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.53	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.60	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.61	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.62	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.63	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.70	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.71	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.72	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.73	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.80	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.81	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.82	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.83	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.90	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.91	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.92	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.93	1	Position Switch Open	Intersystems			Limit Switch			
		EG	308.95	1	Electric gate for Intermediate Discharge	Intersystems			Gate is operated with an electric motor. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick AR liner. Full open & full closed gate operation.			
		XV	308.96	1	Electric motor	Intersystems			230/460V/3PH	0.3		
		ZSC	308.97	1	Position Switch Closed	Intersystems			Limit Switch			
		ZSO	308.98	1	Position Switch Open	Intersystems			Limit Switch			
		BC	500	1	Ground Pile Distribution Belt Conveyor	HiRoller		Model 42 HiLife	40,000 BPH, 650 FPM max, Drive Shaft 118.23 RPM, single Falk 5307JR14 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal.			
		BC	500.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	60.0		
		TE	500.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	500.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	500.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			

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		TE	500.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	500.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	500.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	500.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	500.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	500.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	500.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	500.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		CT	500.50	1	Current Transformer	By Electrician						4-20mA
					Grain Storage				Capacities listed are based upon Whole Grains up to 60 lbs/bu			
		SS	101	1	Whole Grain Concrete Storage Silo #101	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	101.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	101.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	101.10	4	Gravity Vent	Airlanco		24" dia				
		RE	101.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	101.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	101.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	101.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	101.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	101.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	101.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	101.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	101.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	101.40	1	Temperature Monitoring Cable System	By Electrician						
		EPG	101.50	1	Electric proportioning gate for Side Tap Discharge to BE-605 Receiving Leg	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	101.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	101.52	1	Position Switch Closed	HCC						
		ZSO	101.53	1	Position Switch Open	HCC						
		ZT	101.54	1	% Meter	HCC			Potentiometer			4-20 ma
		EPG	101.60	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	101.61	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	101.62	1	Position Switch Closed	HCC						
		ZSO	101.63	1	Position Switch Open	HCC						
		ZT	101.64	1	% Meter	HCC			Potentiometer			4-20 ma
		SS	102	1	Whole Grain Concrete Storage Silo #102	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	102.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	102.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	102.10	4	Gravity Vent	Airlanco		24" dia				
		RE	102.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	102.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	102.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	102.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	102.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			

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		XV	102.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	102.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	102.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	102.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	102.40	1	Temperature Monitoring Cable System	By Electrician						
		EPG	102.50	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	102.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	102.52	1	Position Switch Closed	HCC						
		ZSO	102.53	1	Position Switch Open	HCC						
		ZT	102.54	1	% Meter	HCC			Potentiometer			4-20 ma
		SS	103	1	Whole Grain Concrete Storage Silo #103	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	103.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	103.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	103.10	4	Gravity Vent	Airlanco		24" dia				
		RE	103.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	103.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	103.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	103.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	103.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	103.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	103.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	103.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	103.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	103.40	1	Temperature Monitoring Cable System	By Electrician						
		EPG	103.50	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	103.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	103.52	1	Position Switch Closed	HCC						
		ZSO	103.53	1	Position Switch Open	HCC						
		ZT	103.54	1	% Meter	HCC			Potentiometer			4-20 ma
		SS	201	1	Whole Grain Concrete Storage Interstice Bin #201	HCC		56sqft Dia. x 140ft Tall	6,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 3% adder for compaction factor.			
		LSH	201.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	201.02	1	Smart Bob	By Electrician			Level Indicator			
		EPG	201.03	1	Electric proportioning gate for Center Reclaim Discharge	HCC		20" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	201.10	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	201.11	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	201.12	1	Position Switch Open	HCC			Proximity sensor			
		ZT	201.13	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	201.20	1	Temperature Monitoring Cable System	By Electrician						
		SS	202	1	Whole Grain Concrete Storage Interstice Bin #202	HCC		363.5sqft Dia. x 140ft Tall	33,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 3% adder for compaction factor.			
		LSH	202.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	202.02	1	Smart Bob	By Electrician			Level Indicator			

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		EPG	202.03	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	202.10	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	202.11	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	202.12	1	Position Switch Open	HCC			Proximity sensor			
		ZT	202.13	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	202.20	1	Temperature Monitoring Cable System	By Electrician						
		SS	203	1	Whole Grain Concrete Storage Interstice Bin #203	HCC		363.5sqft Dia. x 140ft Tall	33,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 3% adder for compaction factor.			
		LSH	203.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	203.02	1	Smart Bob	By Electrician			Level Indicator			
		EPG	203.03	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	203.10	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	203.11	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	203.12	1	Position Switch Open	HCC			Proximity sensor			
		ZT	203.13	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	203.20	1	Temperature Monitoring Cable System	By Electrician						
		SS	204	1	Whole Grain Concrete Storage Interstice Bin #204	HCC		56sqft Dia. x 140ft Tall	6,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 3% adder for compaction factor.			
		LSH	204.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	204.02	1	Smart Bob	By Electrician			Level Indicator			
		EPG	204.03	1	Electric proportioning gate for Center Reclaim Discharge	HCC		20" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	204.10	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	204.11	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	204.12	1	Position Switch Open	HCC			Proximity sensor			
		ZT	204.13	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	204.20	1	Temperature Monitoring Cable System	By Electrician						
		SS	301	1	Whole Grain Concrete Storage Silo #301	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	301.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	301.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	301.10	4	Gravity Vent	Airlanco		24" dia				
		RE	301.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	301.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	301.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	301.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	301.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	301.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	301.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	301.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	301.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	301.40	1	Temperature Monitoring Cable System	By Electrician						
		EPG	301.50	1	Electric proportioning gate for Side Tap Discharge to BE-302 Receiving Leg	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			

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		XV	301.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	301.52	1	Position Switch Closed	HCC						
		ZSO	301.53	1	Position Switch Open	HCC						
		ZT	301.54	1	% Meter	HCC			Potentiometer			4-20 ma
		EPG	301.60	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	301.61	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	301.62	1	Position Switch Closed	HCC						
		ZSO	301.63	1	Position Switch Open	HCC						
		ZT	301.64	1	% Meter	HCC			Potentiometer			4-20 ma
		SS	302	1	Whole Grain Concrete Storage Silo #302	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	302.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	302.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	302.10	4	Gravity Vent	Airlanco		24" dia				
		RE	302.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	302.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	302.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	302.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	302.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	302.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	302.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	302.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	302.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	302.40	1	Temperature Monitoring Cable System	By Electrician						
		EPG	302.50	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	302.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	302.52	1	Position Switch Closed	HCC						
		ZSO	302.53	1	Position Switch Open	HCC						
		ZT	302.54	1	% Meter	HCC			Potentiometer			4-20 ma
		SS	303	1	Whole Grain Concrete Storage Silo #303	HCC		42ft Dia. x 140ft Tall	170,000 Maximum "usable" Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	303.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
		LT	303.02	1	Smart Bob	By Electrician			Level Indicator			
Rev	N	RE	303.10	4	Gravity Vent	Airlanco		24" dia				
		RE	303.11	1	Roof Exhauster #1	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		RE	303.12	1	Roof Exhauster #2	Airlanco		24"	230/460V/3PH/60HZ - Explosion Proof	2.0		
		SS	303.20	1	Concrete Aeration/Unloading Package	Airlanco		Luft Kanals	Aeration/Unloading Package - 1/10th CFM per BU aeration for Corn			
		FA	303.21	1	Fan with motor	Airlanco			230V/460V/3PH/60HZ	60.0		
		EPG	303.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	303.31	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	303.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	303.33	1	Position Switch Open	HCC			Proximity sensor			
		ZT	303.34	1	% Meter	HCC			Potentiometer			4-20 ma
		TC	303.40	1	Temperature Monitoring Cable System	By Electrician						

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		EPG	303.50	1	Electric proportioning gate for Side Tap Discharge to BC-700 Wet Belt Conveyor	HCC		18" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	303.51	1	Electric Actuator	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	303.52	1	Position Switch Closed	HCC						
		ZSO	303.53	1	Position Switch Open	HCC						
		ZT	303.54	1	% Meter	HCC			Potentiometer			4-20 ma
		GP	501	1	Ground Pile	?		435' dia	3,656,750 Maximum Bushel Capacity based on Whole Grains.			
Add	N	GP	501.01	4	Brake motors for Winches	?			460/3PH/60Hz			
Add	N	GP	501.02	2	Electric Winch Control Panels	?			Nema 4 Enclosure, Magnetic Reversing Starter, Nema 4 Operator Station w/momentary contact, Selector switch to operate winches individually or all at one time.			
Add	N	FA	501.03	1	Fan with motor w/VFD	?			230V/460V/3PH/60HZ	60.0		
Add	N	FA	501.04	1	Fan with motor w/VFD	?			230V/460V/3PH/60HZ	60.0		
Add	N	FA	501.05	1	Fan with motor w/VFD	?			230V/460V/3PH/60HZ	60.0		
Add	N	FA	501.06	1	Fan with motor w/VFD	?			230V/460V/3PH/60HZ	60.0		
Add	N		501.07		Automated Fan Controller System	?			PLC based multi functional system with operating modes which include: Storage mode which automatically controls fan speed utilizing variable speed drive which will start or stop aeration fans based upon wind speed to hold the cover down fill mode which automatically controls fan speed utilizing variable speed drive which will start or stop aeration fans based upon wind speed to hold the cover down. Fill mode which allows user to operate fans manually during filling, Cool down/aeration mode which the operator manually puts in the hours to operate all the fans and then automatically goes back to maintenance mode when aeration cycle is done. Built in fail safe: If a fan fails, another fan will start and an external LED strobe light will flash to alert operator of an alarm condition.			
Add	N		501.08	1	Heavy Duty Wind Meter	?						
		MG	501.10	1	Manual Gate	HCC		14" square				
		EPG	501.20	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	501.21	1	Electric motor	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	501.22	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	501.23	1	Position Switch Open	HCC			Limit Switch			
		ZT	501.25	1	% Meter	HCC			Potentiometer			4-20 ma
		EPG	501.30	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	501.31	1	Electric motor	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	501.32	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	501.33	1	Position Switch Open	HCC			Limit Switch			
		ZT	501.35	1	% Meter	HCC			Potentiometer			4-20 ma

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		EPG	501.40	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	501.41	1	Electric motor	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	501.42	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	501.43	1	Position Switch Open	HCC			Limit Switch			
		ZT	501.45	1	% Meter	HCC			Potentiometer			4-20 ma
		EPG	501.50	1	Electric proportioning gate for Center Reclaim Discharge	HCC		24" square	Gate is operated with an electric XP actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	501.51	1	Electric motor	HCC		Linear Actuator	230/460V/3PH	0.5		
		ZSC	501.52	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	501.53	1	Position Switch Open	HCC			Limit Switch			
		ZT	501.55	1	% Meter	HCC			Potentiometer			4-20 ma
		MG	501.60	1	Manual Gate	HCC		14" square				
		MG	501.61	1	Manual Gate	HCC		14" square				
		MG	501.62	1	Manual Gate	HCC		14" square				
		MG	501.63	1	Manual Gate	HCC		14" square				
		MG	501.64	1	Manual Gate	HCC		14" square				
RECLAIM & LOAD OUT SYSTEM												
										Capacities listed are based upon Whole Grains @ 60 lbs/bu		
		BC	550	1	Ground Pile Reclaim Belt	HiRoller		Model 42 HiLife	40,000 BPH, 650 FPM max, Drive Shaft 118.23 RPM, single Falk 5307JR14 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor has a 1 degree incline			
		BC	550.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	75.0		
		TE	550.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	550.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	550.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	550.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	550.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	550.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	550.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	550.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	550.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	550.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	550.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
		CT	550.50	1	Current Transformer	By Electrician						4-20mA
		BC	601	1	Concrete Silo Reclaim Belt	HiRoller		Model 42 HiLife	40,000 BPH, 650 FPM max, Drive Shaft 165.52 RPM, single Falk 5215JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal			
		BC	601.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	40.0		
		XV	601.11	1	Electric Actuator	HiRoller		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	601.12	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Rev	N	ZSO	601.13	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Add	N	ZSC	601.14	1	Position Switch Closed	HiRoller		Model 11	Go Switch			
Add	N	ZSO	601.15	1	Position Switch Open	HiRoller		Model 11	Go Switch			
Rev	N	ZT	601.16	1	% Meter	HiRoller			Potentiometer			4-20 ma
Rev	N	TE	601.20	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
Rev	N	TE	601.21	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
Rev	N	TE	601.22	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	TE	601.23	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	BAS	601.30	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
Rev	N	BAS	601.31	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
Rev	N	BAS	601.32	1	Belt alignment sensor at Head	By Electrician			NEMA 9			

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Rev	N	BAS	- 601.33	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
Rev	N	SSL	- 601.40	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
Rev	N	SSL	- 601.41	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
Rev	N	LSH	- 601.50	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Rev	N	LSH	- 601.60	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Rev	N	CT	- 601.70	1	Current Transformer	By Electrician						4-20mA
		BE	- 605	1	Loadout/Receiving Bucket Elevator	Intersystems		GE4866	40,000 BPH, 699 FPM max, 54.5 RPM, Class V Falk M165VR3-A-32.584:1 drive at head, screw take-up at boot, shovel pockets, inlet, boot & head section lined w/ 1/4" ceramic, explosion panels, 48" dia. pulleys & mechanical belt splice. R&P Cleanout Gates in boot section. Designed for Whole Grains.			
		BE	- 605.01	1	Electric Motor for Bucket Elevator	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	350.0		
		TE	- 605.10	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	- 605.11	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	- 605.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	- 605.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	BAS	- 605.20	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Rev	N	BAS	- 605.21	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Add	N	BAS	- 605.22	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Add	N	BAS	- 605.23	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Rev	N	BAS	- 605.24	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Rev	N	BAS	- 605.25	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Add	N	BAS	- 605.26	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
Add	N	BAS	- 605.27	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
		SSL	- 605.30	1	Motion sensor on boot shaft	By Electrician			NEMA 9			
		LSH	- 605.40	1	Discharge plug sensor	Intersystems		BinMaster 65DFHT DBDT	Plug Switch located in leg head discharge			
Rev	N	MG	- 605.50	1	Manual Magnet	Intersystems		SMC06-58"				
Add	N	ZSC	- 605.51	1	Position Switch Closed	Intersystems			NEMA 9 Limit Switch			
Rev	N	ZSO	- 605.52	1	Position Switch Open	Intersystems			NEMA 9 Limit Switch			
		CT	- 605.70	1	Current Transformer	By Electrician						4-20mA
Rev	N	EOV	- 606	1	Electric Two-Way Slide Gate Valve	HCC		26" sq. 'K' style, 45 deg.	40,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 606.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 606.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 606.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 606.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 606.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 606.15	1	Position Switch Open	HCC			Go Switch			
Rev	N	EOV	- 607	1	Electric Two-Way Slide Gate Valve	HCC		26" sq. 'K' style, 45 deg.	40,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 607.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 607.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 607.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 607.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 607.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 607.15	1	Position Switch Open	HCC			Go Switch			
		DC	- 608	1	Loadout/Distribution Drag Conveyor	Intersystems		EMC2526-P	20,000 BPH, 137 FPM max, final drive RPM 26.73, single Falk 5407J Class 2 HTD Belt drive at head, Manual take-up at tail, designed for whole grains, conveyor is horizontal			
		DC	- 608.01	1	Electric motor for conveyor	Intersystems			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	25.0		
		TE	- 608.10	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	- 608.11	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			

PRELIMINARY MOTOR AND DEVICE LIST

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		TE	608.12	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		TE	608.13	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
Rev	N	LSH	608.20	1	Plug switch on Head section	Intersystems			Go Switch			
		SSL	608.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		TS	608.40	1	Slack chain detector switch	Intersystems			NEMA 9			
		CT	608.50	1	Current Transformer	By Electrician						4-20mA
		DC	609	1	Loadout/Distribution Drag Conveyor	Intersystems		EMC2526-P	20,000 BPH, 137 FPM max, final drive RPM 26.73, single Falk 5407J Class 2 HTD Belt drive at head, Manual take-up at tail, designed for whole grains, conveyor is horizontal			
		DC	609.01	1	Electric motor for conveyor	Intersystems			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	25.0		
		TE	609.10	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	609.11	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	609.12	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		TE	609.13	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
Rev	N	LSH	609.20	1	Plug switch on Head section	Intersystems			Go Switch			
		SSL	609.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		TS	609.40	1	Slack chain detector switch	Intersystems			NEMA 9			
		CT	609.50	1	Current Transformer	By Electrician						4-20mA
		GS	610	1	Gravity Screener	Intersystems		PC-40000	Screening Capacity 40,000 BPH Internal By-Pass Capacity 60,000 BPH Maximum Flow Rate 60,000 BPH, Gravity Clean			
		GS	610.10	1	Manual internal bypass	Intersystems						
		SC	610.1	1	Screw Conveyor	HCC		12"dia x 10'-0" Long	1,000 BPH, Screw Conv.			
		SC	610.11	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	5.0		
		TE	610.12	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	610.13	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		LSH	610.14	1	Plug switch on Head section	By Electrician			NEMA 9			
		SSL	610.15	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		CT	610.16	1	Current Transformer	By Electrician						4-20mA
		BW	612	1	Rail Load Out Bulk Weighing Scale System	Intersystems			100,000 BPH, 50,400# Drafts			
			612.01	1	MasterWeigh Infinity Plus Scale Control System	Intersystems						
			612.02	1	Rail Car Tag Reader	Intersystems		SmartPass RFID	120VAC/18VDC			
		BW	401.00	1	Upper garner	HCC		11,756 Bu				
		LSH	401.11	1	High level switch for upper garner	By Electrician			Point level control.			
		LSL	401.12	1	Low level switch for upper garner	Intersystems			Point level control.			
		HG	611.00	1	Hydraulic ladder gate for upper garner	Intersystems		74" x 84"	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation.			
		XV	611.01	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	611.02	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	611.03	1	Position Switch Open	Intersystems			Proximity sensor			
Del	N	ZT	611.04	1	Potentiometer	Intersystems			Potentiometer			4-20ma
		BW	612.00	1	Weigh hopper	Intersystems		1,177 CF				
		LSH	612.11	1	High level switch for weigh hopper	Intersystems			Point level control.			
		LSL	612.12	1	Low level switch for weigh hopper	Intersystems			Point level control.			
Add	N	WE	612.13	4	Load Cells	Intersystems		20,000 lb/Each				
		TW	612.20	4	Scale test weights	Intersystems		2000 lb Class F	Cast iron, painted, with traceable certificates			
		TWL	612.21	1	Test weight Hydraulic lift system	Intersystems						
		HP	612.30	1	Hydraulic Power Unit	Intersystems			30 GPM Pump	20.0		
		HP	612.31	1	High/Low Temperature Level Switch	Intersystems						
Add	N	HP	612.32	1	Power Unit Heater	Intersystems			750 Watt / 115 Volt			
		HG	613.00	1	Hydraulic gate for Bulk Weigher	Intersystems			Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation.			

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		XV	613.01	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	613.02	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	613.03	1	Position Switch Open	Intersystems			Proximity sensor			
Del	N	ZT	613.04	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
		BW	613.40	1	Middle Lower garner	Intersystems		1,230 CF				
Del	N	LSH	613.41	1	High level switch for Lower Garner	Intersystems			Point level control.			
Rev	N	LSL	613.41	1	Low level switch for Lower Garner	Intersystems			Point level control.			
		EPG	614.00	1	Electric proportioning gate for BW Surge Hopper Discharge	Intersystems		42" square	Gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	614.01	1	Electric actuator	Intersystems		Linear Actuator	230/460V/3PH	1.0		
		ZSC	614.10	1	Position Switch Closed	Intersystems			Limit Switch, Nema 4			
		ZSO	614.11	1	Position Switch Open	Intersystems			Limit Switch, Nema 4			
		ZT	614.12	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
		SA	615	1	Sampler System	Intersystems		GRE 90	100,000 BPH, Rotary Cross Cut, 42" sq.			
		XV	615.10	1	Electric Motor	Intersystems			230/460V, 3PH/Nema 9	1.0		
		ZSC	615.11	1	Position Switch Closed	Intersystems			Limit Switch, Nema 9			
		ZSO	615.12	1	Position Switch Open	Intersystems			Limit Switch, Nema 9			
			615.13	1	Digital Timer Control Panel	Intersystems			Nema 12			
		MD	615.14	1	Mechanical Divider	Intersystems		MD1000	120V / 1PH / .6Amp / 60Hz / Nema 9			
			615.15	1	Collection cabinet in FGIS room	Intersystems			Electric			
			615.16	1	Collection cabinet in Owner loadout control room	Intersystems						
		HPG	616.00	1	Hydraulic gate for Diverter	Intersystems		42" Sq	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	616.10	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	616.11	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	616.12	1	Position Switch Open	Intersystems			Proximity sensor			
		ZT	616.13	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
		HPG	617.00	1	Hydraulic gate for Diverter	Intersystems		42" Sq	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	617.10	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	617.11	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	617.12	1	Position Switch Open	Intersystems			Proximity sensor			
		ZT	617.13	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
		SB	402.00	1	Lower garner	HCC		4,416 Bu				
		LSH	402.11	1	High level switch for Lower Garner	By Electrician			Point level control.			
		LSL	402.12	1	Low level switch for Lower Garner	By Electrician			Point level control.			
		HPG	618.00	1	Hydraulic gate for Lower Garner	Intersystems		24" x 60"	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	618.10	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	618.11	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	618.12	1	Position Switch Open	Intersystems			Proximity sensor			
		ZT	618.13	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
		SB	403.00	1	Lower garner	HCC		4,416 Bu				
		LSH	403.10	1	High level switch for Lower Garner	By Electrician			Point level control.			
		LSL	403.11	1	Low level switch for Lower Garner	By Electrician			Point level control.			

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		HPG	619.00	1	Hydraulic gate for Lower Garner	Intersystems		24" x 60"	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	619.10	1	Electric double acting solenoid valve	Intersystems			230/460V/3PH	1.0		
		ZSC	619.11	1	Position Switch Closed	Intersystems			Proximity sensor			
		ZSO	619.12	1	Position Switch Open	Intersystems			Proximity sensor			
		ZT	619.13	1	Potentiometer	Intersystems			Potentiometer			4-20 ma
Add	N	HP	620.00	1	Hydraulic Power Unit	Intersystems			20 GPM Pump to serve HPG-618, HPG-619 & 3 Cylinders on Loadout Spout	10.0		
		SD	630.00	1	Sample Delivery System Pump	Intersystems		SD-3				
Rev	N	SD	630.10	1	Electric motor for Pump	Intersystems			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 230/460V/3PH	5.0		
Rev	N	RV	630.2	1	Airlock	Intersystems			230/460V/3PH, XP	0.3		
		SS	670	1	Screenings Hopper Bin	HCC		12'-6" dia	2,000 Maximum Bushel Capacity			
		SC	672	1	Screw Conveyor	HCC		9" Dia	1,000 BPH, Screw Conv.			
		SC	672.10	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, XP with 1.15 SF. 480V/3PH/60HZ, located at head.	10.0		
		TE	672.11	1	Bearing temp sensor on Head bearing	By Electrician			NEMA 9			
		TE	672.12	1	Bearing temp sensor on Tail bearing	By Electrician			NEMA 9			
		LSH	672.13	1	Plug switch on Head section	By Electrician			NEMA 9			
		SSL	672.14	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		CT	672.15	1	Current Transformer	By Electrician						4-20mA
		TS	650	1	Rail Load Out Spout	HCC			100,000 bph capacity			
		HC	650.10	1	Hydraulic Cylinder for Hinged Point	HCC						
		XV	650.11	1	Electric double acting solenoid valve	HCC			230/460V/3PH	1.0		
		ZSC	650.12	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	650.13	1	Position Switch Open	HCC			Proximity sensor			
		HC	650.20	1	Hydraulic Cylinder for Retractable Spout	HCC						
		XV	650.21	1	Electric double acting solenoid valve	HCC			230/460V/3PH	1.0		
		ZSC	650.22	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	650.23	1	Position Switch Open	HCC			Proximity sensor			
		HC	650.30	1	Hydraulic Cylinder for Retractable Spout	HCC						
		XV	650.31	1	Electric double acting solenoid valve	HCC			230/460V/3PH	1.0		
		ZSC	650.32	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	650.33	1	Position Switch Open	HCC			Proximity sensor			
		TS	650.40	1	Electric Trolley	HCC			Trolley to move spout left and right	1.0		
		SS	404	1	Truck Loadout Bin	HCC			15,650 Maximum Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	404.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
			404.02	1	Smart Bob	By Electrician						
		RE	404.10	1	Gravity Vent	HCC						
		HPG	404.20	1	Hydraulic proportioning gate for Discharge	HCC		18" square	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.			
		XV	404.21	1	Electric double acting solenoid valve	HCC			230/460V/3PH	0.5		
		ZSC	404.22	1	Position Switch Closed	HCC			Proximity sensor			
		ZSO	404.23	1	Position Switch Open	HCC			Proximity sensor			
		ZT	404.24	1	% Meter	HCC			Potentiometer			4-20mA
		SS	405	1	Truck Loadout Bin	HCC			15,650 Maximum Bushel Capacity based on Whole Grains and includes 6% adder for compaction factor.			
		LSH	405.01	1	High level switch	By Electrician			Point level control - Stop feed source & initiate shut down sequence			
			405.02	1	Smart Bob	By Electrician						
		RE	405.10	1	Gravity Vent	HCC						

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		HPG - 405.20	1	Hydraulic proportioning gate for Discharge	HCC		18" square	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.				
		XV - 405.21	1	Electric double acting solenoid valve	HCC			230/460V/3PH	0.5			
		ZSC - 405.22	1	Position Switch Closed	HCC			Proximity sensor				
		ZSO - 405.23	1	Position Switch Open	HCC			Proximity sensor				
		ZT - 405.24	1	% Meter	HCC			Potentiometer			4-20mA	
		SB - 410.00	1	Loadout Surge Hopper	HCC		1,162 CF					
		LSH - 410.10	1	High level switch for upper garner	By Electrician			Point level control.				
		LSL - 410.11	1	Low level switch for upper garner	By Electrician			Point level control.				
		TW - 410.12	4	Scale test weights	HCC		1250 lb Class F	Cast iron, painted, with traceable certificates				
		410.20	1	Loadout Controls System	Electrician							
		HPG - 415.00	1	Hydraulic proportioning gate for Discharge	HCC		18" square	Gate is operated with an hydraulic cylinder. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick ceramic liner. Full open & full closed gate operation as well as metering control with potentiometer.				
		XV - 415.10	1	Electric double acting solenoid valve	HCC			230/460V/3PH	0.5			
		ZSC - 415.11	1	Position Switch Closed	HCC			Limit Switch				
		ZSO - 415.12	1	Position Switch Open	HCC			Limit Switch				
		ZT - 415.13	1	% Meter	HCC			Potentiometer			4-20mA	
Add	N	HP - 416.00	1	Hydraulic Power Unit	Intersystems			20 GPM Pump to serve HPG-404.20, HPG-405.20 & HPG-415.00	10.0			
		SP - 420.00	1	Dustless Loudout Spout	Redwing		Model K-870	20,000 BPH Spout				
700 - GRAIN DRYING SYSTEM								Capacities listed are based upon Whole Grains @ 59 lbs/bu				
		BC - 700	1	Concrete Silo Reclaim Wet Belt	HiRoller		Model 30 HiRoller	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5407JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor has a 3 degree incline				
		BC - 700.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	30.0			
		TE - 700.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9				
		TE - 700.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9				
		TE - 700.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9				
		TE - 700.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9				
		BAS - 700.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9				
		BAS - 700.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9				
		BAS - 700.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9				
		BAS - 700.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9				
		SSL - 700.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9				
		SSL - 700.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9				
		LSH - 700.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section				
Del	N	LSH - 700.50	1	Discharge Pressure Plug Switch	HiRoller			Plug Switch located in discharge head section				
Rev	N	CT - 700.50	1	Current Transformer	By Electrician						4-20mA	
		BC - 701	1	Concrete Silo Reclaim Wet Belt	HiRoller		Model 30 HiRoller	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5115JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal				
		BC - 701.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	15.0			
		TE - 701.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9				
		TE - 701.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9				
		TE - 701.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9				
		TE - 701.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9				
		BAS - 701.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9				
		BAS - 701.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9				
		BAS - 701.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9				
		BAS - 701.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9				

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		SSL	- 701.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	- 701.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	- 701.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Del	N	LSH	- 701.50	1	Discharge Pressure Plug Switch	HiRoller			Plug Switch located in discharge head section			
Rev	N	CT	- 701.50	1	Current Transformer	By Electrician						4-20mA
		BE	- 702	1	Receiving/Wet Bucket Elevator	Intersystems		GE4838	20,000 BPH, 683 FPM max, Head Shaft 53.2 RPM, Class V Falk M155VR3-A-32.584:1 drive at head, screw take-up at boot, shovel pockets, inlet, boot & head section lined w/ 1/4" ceramic, explosion panels, 48" dia. pulleys & mechanical belt splice, R&P Cleanout Gates in boot section. Designed for Whole Grains.			
		BE	- 702.01	1	Electric Motor for Bucket Elevator	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 460V/3PH/60HZ, located at head.	200.0		
		TE	- 702.10	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	- 702.11	1	Bearing temp sensor on Boot pulley bearing	By Electrician			NEMA 9			
		TE	- 702.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	- 702.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
Rev	N	BAS	- 702.20	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Rev	N	BAS	- 702.21	1	Belt alignment sensor at Boot Upside	By Electrician			NEMA 9			
Add	N	BAS	- 702.22	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Add	N	BAS	- 702.23	1	Belt alignment sensor at Boot Downside	By Electrician			NEMA 9			
Rev	N	BAS	- 702.24	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Rev	N	BAS	- 702.25	1	Belt alignment sensor at Head Upside	By Electrician			NEMA 9			
Add	N	BAS	- 702.26	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
Add	N	BAS	- 702.27	1	Belt alignment sensor at Head Downside	By Electrician			NEMA 9			
		SSL	- 702.30	1	Motion sensor on boot shaft	By Electrician			NEMA 9			
		LSH	- 702.40	1	Discharge plug sensor	Intersystems		BinMaster 65DFHT DBDT	Plug Switch located in discharge spout			
Rev	N	MG	- 702.50	1	Manual Magnet	Intersystems						
Add	N	ZSC	- 702.51	1	Position Switch Closed	Intersystems			NEMA 9 Limit Switch			
Rev	N	ZSO	- 702.52	1	Position Switch Open	Intersystems			NEMA 9 Limit Switch			
		CT	- 702.70	1	Current Transformer	By Electrician						4-20mA
Rev	N	EOV	- 703	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 703.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 703.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 703.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 703.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 703.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 703.15	1	Position Switch Open	HCC			Go Switch			
Rev	N	EOV	- 704	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	- 704.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 704.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 704.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	- 704.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	- 704.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	- 704.15	1	Position Switch Open	HCC			Go Switch			
		BC	- 705	1	Wet Grain Distribution Belt	HiRoller		Model 30 HiRoller	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5203JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal			
		BC	- 705.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	20.0		
		TE	- 705.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	- 705.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	- 705.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			

PRELIMINARY MOTOR AND DEVICE LIST

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Rev, Del & Add	REV NO.	PREFIX	NUMBER	QTY	DESCRIPTION- Concrete 6-pack, (4) Interstice Bins 1/10 CFM on concrete 6-pack & 1 Ground Pile & a 10,000 BPH dryer system	MANUFACTURER	P.O.#	MODEL No. & SIZE	DESIGN/ CAPACITY/ CONSTRUCTION	HP	SUPPLY VOLTS	OUTPUT SIGNAL
		TE	705.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	705.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	705.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	705.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	705.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	705.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	705.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	705.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Del	N	LSH	705.50	1	Discharge Pressure Plug Switch	HiRoller			Plug Switch located in discharge head section			
Rev	N	CT	705.50	1	Current Transformer	By Electrician						4-20mA
		DR	706	1	Grain Dryer (1)	GSI		10090	10,000 BPH Tower Dryer, natural gas for drying corn w/ 5 point moisture removal			
		DR	706.01	1	Feed Forward Moisture controler	GSI						
		BL	706.10	1	Blower #1	GSI			125,000 CFM			
		BL	706.11	1	Motor for Blower #1	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.20	1	Blower #2	GSI			125,000 CFM			
		BL	706.21	1	Motor for Blower #2	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.30	1	Blower #3	GSI			125,000 CFM			
		BL	706.31	1	Motor for Blower #3	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.40	1	Blower #4	GSI			125,000 CFM			
		BL	706.41	1	Motor for Blower #4	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BC	707	1	Dry Grain Reclaim Belt	HiRoller		Model 30	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5115JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal			
		BC	707.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	15.0		
		TE	707.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	707.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	707.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		TE	707.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	707.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	707.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	707.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	707.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	707.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	707.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	707.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Del	N	LSH	707.50	1	Discharge Pressure Plug Switch	HiRoller			Plug Switch located in discharge head section			
		DR	706	1	Grain Dryer (2)	GSI		10090	10,000 BPH Tower Dryer, natural gas for drying corn w/ 5 point moisture removal			
		DR	706.01	1	Feed Forward Moisture controler	GSI						
		BL	706.10	1	Blower #1	GSI			125,000 CFM			
		BL	706.11	1	Motor for Blower #1	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.20	1	Blower #2	GSI			125,000 CFM			
		BL	706.21	1	Motor for Blower #2	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.30	1	Blower #3	GSI			125,000 CFM			
		BL	706.31	1	Motor for Blower #3	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BL	706.40	1	Blower #4	GSI			125,000 CFM			
		BL	706.41	1	Motor for Blower #4	GSI			460V/3PH/60HZ - Soft Start	125.0		
		BC	707	1	Dry Grain Reclaim Belt	HiRoller		Model 30	20,000 BPH, 700 FPM max, Drive Shaft 178.25 RPM, single Falk 5115JR09 Class 2 HTD reducer Belt drive at head, Manual take-up at tail, conveyor is horizontal			
		BC	707.01	1	Electric motor for belt	HCC			Premium efficient motor, 1750 RPM, EXP with 1.15 SF. 440V/3PH/60HZ, located at head.	15.0		
		TE	707.10	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	707.11	1	Bearing temp sensor on Tail pulley bearing	By Electrician			NEMA 9			
		TE	707.12	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			

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		TE	707.13	1	Bearing temp sensor on Head pulley bearing	By Electrician			NEMA 9			
		BAS	707.20	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	707.21	1	Belt alignment sensor at Tail	By Electrician			NEMA 9			
		BAS	707.22	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		BAS	707.23	1	Belt alignment sensor at Head	By Electrician			NEMA 9			
		SSL	707.30	1	Motion Sensor at Tail Shaft	By Electrician			NEMA 9			
		SSL	707.31	1	Motion sensor on boot shaft for HOA	By Electrician			NEMA 9			
		LSH	707.40	1	Discharge Pressure Plug Switch	HiRoller		Binatrol Model GX	Plug Switch located in discharge head section			
Del	N	LSH	707.50	1	Discharge Pressure Plug Switch	HiRoller			Plug Switch located in discharge head section			
Rev	N	CT	707.50	1	Current Transformer	By Electrician						4-20mA
Rev	N	EOV	708	1	Electric Two-Way Slide Gate Valve	HCC		18" sq. 'K' style, 45 deg.	20,000 BPH, Each gate is operated with an electric actuator. HD dust-tight construction w/ cam followers and lined through out with 1/4" thick Ceramic liner. Full open & full closed gate operation.			
Rev	N	XV	708.10	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	708.11	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	708.12	1	Position Switch Open	HCC			Go Switch			
Add	N	XV	708.13	1	Electric Andco Actuator	HCC		Linear Actuator	230/460V/3PH	1.0		
Rev	N	ZSC	708.14	1	Position Switch Closed	HCC			Go Switch			
Rev	N	ZSO	708.15	1	Position Switch Open	HCC			Go Switch			
					Dust Control							
		BH	800	1	Receiving Dust Control System X 45,000 CFM	Airlanco		378/330RLP10	Timer Board assembly, 110V, 1Ph			
Rev	N		800.11	1	Arm Drive Motor	Airlanco			Explosion Proof	0.8		
Rev	N		800.12	1	Reverse Air Fan	Airlanco			Explosion Proof	15.0		
Add	N	SC	800.20	1	Live Bottom Auger	Airlanco			Slave Driven with Airlock			
Rev	N	FF	801	1	Filter Fan	Airlanco		BI-44 Class 4	Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 230/460V/3PH/60HZ, 1,379 RPM	125.0		
		SC	802	1	Dust Transfer Screw Conveyor	HCC			1,000 BPH, Screw Conv.			
Rev	N	SC	802.01	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 480V/3PH/60HZ, located at tail	10.0		
		LSH	802.10	1	Plug switch on Head section	HCC			NEMA 9			
		CT	802.20	1	Current Transformer	By Electrician						4-20mA
Rev	N	RV	803	1	Airlock	Airlanco		UDV-12	Rotary Airlock, 230/460V/3PH/60Hz TEFC, 18 RPM	1.5		
		EOV	804	1	Electric Two-Way Valve	HCC		12" sq flop style	10,000 BPH			
Rev	N	XV	804.10	1	Electric motor	HCC			230V/460V/3PH/60HZ XP	1.0		
		ZSC	804.11	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	804.12	1	Position Switch Open	HCC			Limit Switch			
		ZSC	804.13	1	Position Switch Closed	HCC			Limit Switch			
		ZSO	804.14	1	Position Switch Open	HCC			Limit Switch			
		BH	900	1	Loadout Dust Control System X 10,000 CFM	Airlanco		64RLP12	Timer Board assembly, 110V, 1Ph			
Rev	N		900.11	1	Arm Drive Motor	Airlanco			Explosion Proof	0.8		
Rev	N		900.12	1	Reverse Air Fan	Airlanco			Explosion Proof	7.5		
Add	N	SC	900.20	1	Live Bottom Auger	Airlanco			Slave Driven with Airlock			
Rev	N	FF	901	1	Filter Fan	Airlanco		364DH Series 20	230V/460V/3PH/60HZ TEFC, 1,390 RPM	40.0		
		SC	902	1	Dust Transfer Screw Conveyor	HCC			1,000 BPH, Screw Conv.			
Rev	N	SC	902.01	1	Electric motor for conveyor	HCC			Premium efficient motor, 1750 RPM, TEFC with 1.15 SF. 480V/3PH/60HZ, located at tail	10.0		
		LSH	902.10	1	Plug switch on Head section	HCC			NEMA 9			
		CT	902.11	1	Current Transformer	By Electrician						4-20mA
Rev	N	RV	903	1	Airlock	Airlanco		UDV-10	Rotary Airlock, 230/460V/3PH/60Hz TEFC, 18 RPM	1.5		

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				1000 - MISC. ITEMS							
		ML - 1000	1	500# Manlift	Sidney			Stops: grade, Loadout Filter Platform, Bulkweigher Floor, Bindeck/Roof, Scalper Platform, Distributor Platform			
		ML - 1000.01	1	Electric Motor for Manlift	Sidney			230/460V/60/3PH Overhead Motor	3.0		
		LSH - 1000.10		Grade Stop Limit Switch	Sidney						
		ZSC - 1000.11	1	Position Switch Closed	Sidney						
		ZSO - 1000.12	1	Position Switch Open	Sidney						
		ML - 1000.13	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.20		Rail Crossover Platform Stop Limit Switch	Sidney						
		ZSC - 1000.21	1	Position Switch Closed	Sidney						
		ZSO - 1000.22	1	Position Switch Open	Sidney						
		ML - 1000.23	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.30		Sampler Floor Stop Limit Switch	Sidney						
		ZSC - 1000.31	1	Position Switch Closed	Sidney						
		ZSO - 1000.32	1	Position Switch Open	Sidney						
		ML - 1000.33	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.30		Bulkweigher Floor Stop Limit Switch	Sidney						
		ZSC - 1000.31	1	Position Switch Closed	Sidney						
		ZSO - 1000.32	1	Position Switch Open	Sidney						
		ML - 1000.33	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.40		Bin Deck/Roof Stop Limit Switch	Sidney						
		ZSC - 1000.41	1	Position Switch Closed	Sidney						
		ZSO - 1000.42	1	Position Switch Open	Sidney						
		ML - 1000.43	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.50		Leg Head Platform Stop Limit Switch	Sidney						
		ZSC - 1000.51	1	Position Switch Closed	Sidney						
		ZSO - 1000.52	1	Position Switch Open	Sidney						
		ML - 1000.53	1	Control Stations	Sidney			Two Button control Station at landing			
		LSH - 1000.60		Leg Head Platform Stop Limit Switch	Sidney						
		ZSC - 1000.61	1	Position Switch Closed	Sidney						
		ZSO - 1000.62	1	Position Switch Open	Sidney						
		ML - 1000.63	1	Control Stations	Sidney			Two Button control Station at landing			
Rev	N	ML - 1000.70	1	Control Panel w/ Disconnect Switch	Sidney			AF-S Vector Drive (Nema 4, 12), Soft Start, Phase Reversal Protection, Control Circuit Relays & Trans., Potential Relay, Control Circuit w/ Fuses, Overload Heaters, Separate Fused Car Light w/ Alarm, circuit all prewired to numbered terminal, Single Automatic Push Button operation. Nema 4			
		OH - 1005	3	14' x 16' Overhead Doors	HCC			Sectional Mounted			
		OH - 1005.01	3	Electric Motor for Overhead Doors	HCC			1/2hp ea, 230v, 60 hz, 3 phase	1.5	230	
		OH - 1005.10	3	Control Stations	HCC			Three Button control Stations			
Rev	N	OH - 1006	3	14' x 24' Overhead Doors	HCC			Sectional Mounted			
		OH - 1006.01	3	Electric Motor for Overhead Doors	HCC			1/2hp ea, 230v, 60 hz, 3 phase	1.5	230	
		OH - 1006.10	3	Control Stations	HCC			Three Button control Stations			
		1007	1	Receiving Building	HCC			Plug-ins and Lighting per code		110	
		1008	1	Receiving Office	HCC			Plug-ins and Lighting per code			
		HV - 1008.10	1	Wall Mounted Heating/AC Unit	HCC						
		1009	1	MCC Room	Owner			Plug-ins and Lighting per code			
		HV - 1009.10	1	Wall Mounted AC Unit	Owner						
		1010	1	Load Out Control Room	HCC			Plug-ins and Lighting per code			
		HV - 1010.10	1	Wall Mounted Heating/AC Unit	HCC						
		1011	1	FGIS Room	HCC			Plug-ins and Lighting per code			
		HV - 1011.10	1	Wall Mounted Heating/AC Unit	HCC						

Volt. = Voltage; S.C. = Scope Change; Del. = Deleted; Add = Added

TOTAL HP REQUIREMENTS: 3420.5