

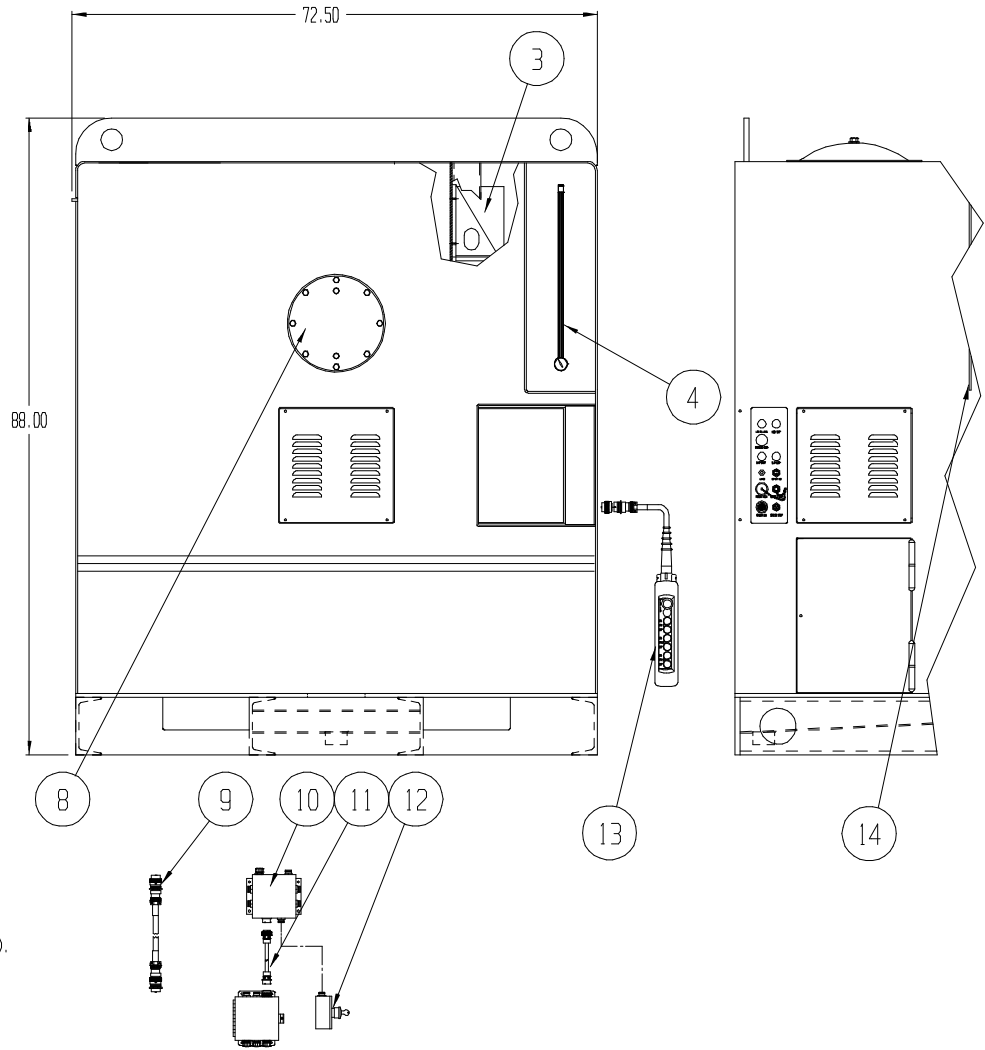
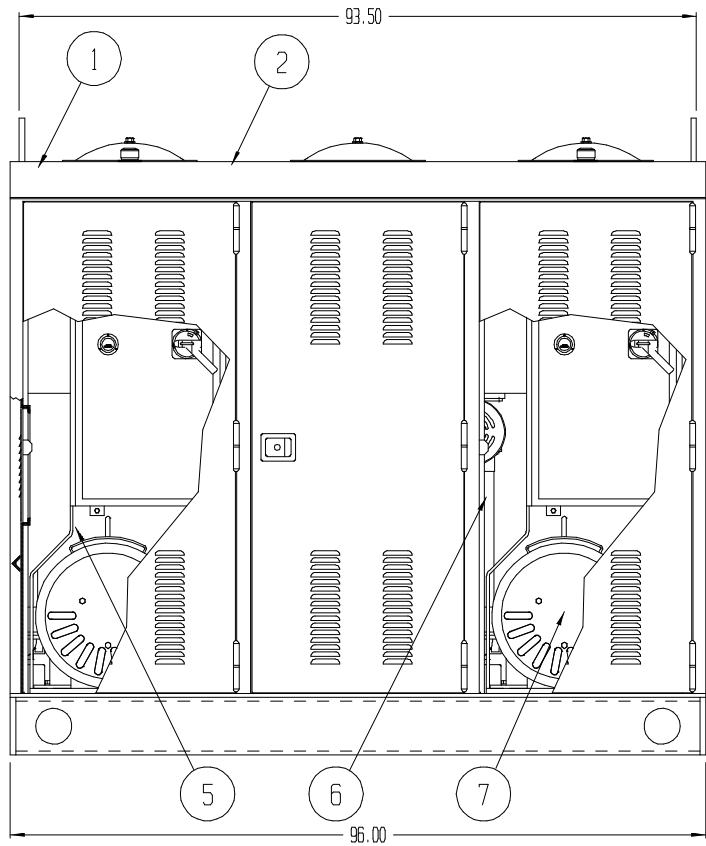
Akkerman Inc.

Rt. 1 Box 10 Brownsdale MN. USA 55918  
( 507 ) 567-2261

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Parts Manual  
Model P600  
Power Pack

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**CAPACITIES:**

- HYDRAULIC RESIVOIR, 600 US GALLONS.
- HYDRAULIC PUMP ( 2 STAGE GEAR ) AND 100-HP MOTOR, 28 GPM TO 2800 PSI. ( EACH STAGE ).
- HYDRAULIC PUMP ( 3 STAGE GEAR ) AND 100-HP MOTOR, 28 GPM TO 2800 PSI. ( 2 STAGES ) & 12 GPM TO 2800 PSI. ( 3RD STAGE ).
- HYDRAULIC PUMP ( PV-4020 PISTON ) AND 50-HP MOTOR, 15 GPM TO 5000 PSI AND 9 GPM TO 8000 PSI.
- HYDRAULIC PUMP ( PV-4020 PISTON ) AND 100-HP MOTOR, 15 GPM TO 8000 PSI.
- HYDRAULIC PUMP ( PV-6033 PISTON ) AND 100-HP MOTOR, 24 GPM TO 6000 PSI AND 15 GPM TO 8000 PSI.
- HYDRAULIC PUMP ( PV-6033 PISTON ) AND 200-HP MOTOR, 24 GPM TO 8000 PSI.

**FILTRATION:**


- RT-8, 10 MICRON ( 8 ELEMENTS ).
- PILOT, 10 MICRON

**WEIGHT:**

- FRAME, 6880 LBS ( DRY )
- 100 HP LOW PRESSURE, 1670 LBS
- 50 HP HIGH PRESSURE, 1420 LBS
- 100 HP HIGH PRESSURE, 1740 LBS
- 200 HP HIGH PRESSURE, 2150 LBS

**HEAT EXCHANGER:**

4-PASS, WATER OVER OIL, SUPPLIED WITH 45 GPM OIL FLOW.

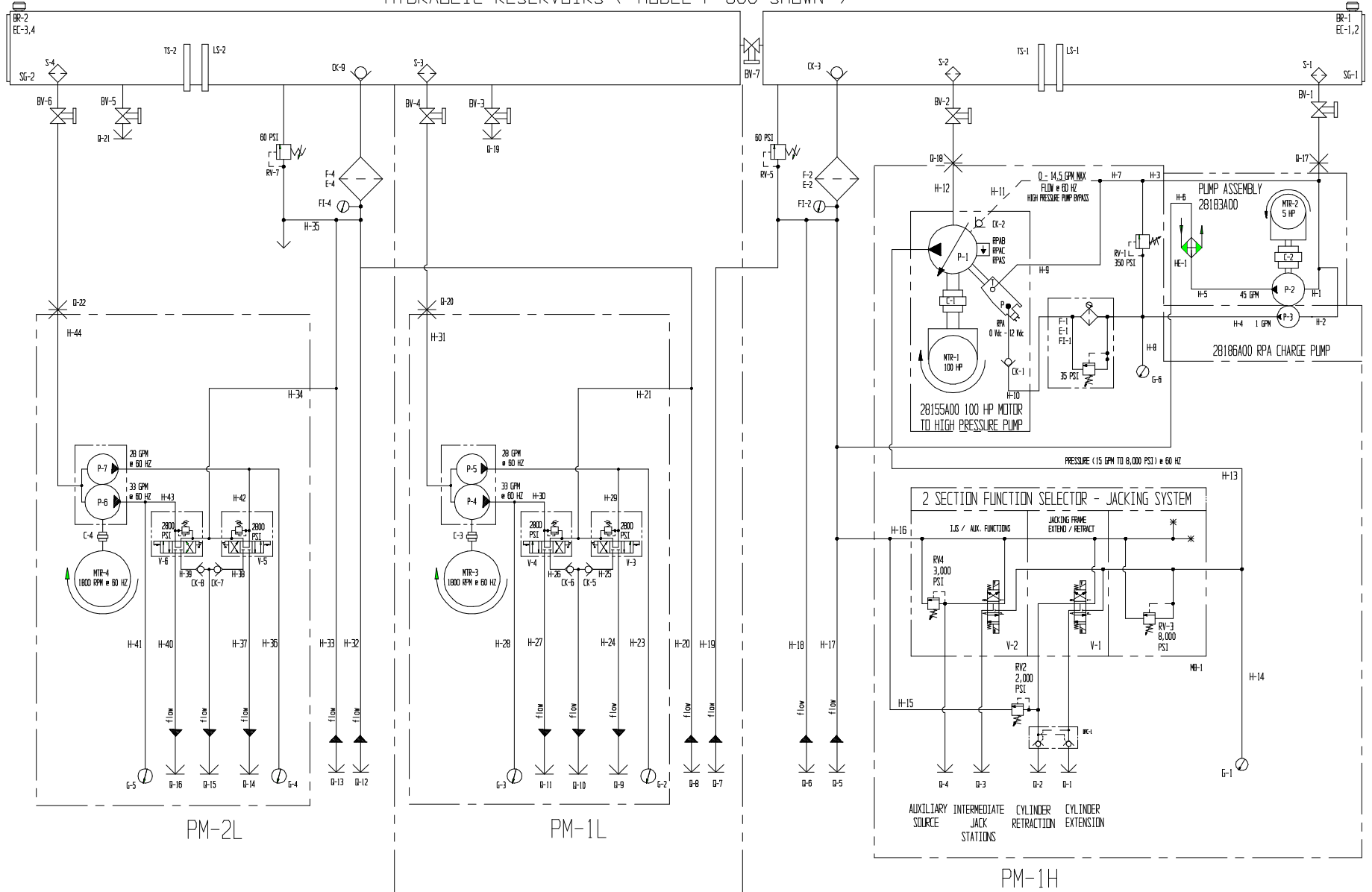
E						 <b>AKKERMAN INC.</b> BROWNSDALE, MN 55918 TEL. (507) 567-2261			
D									
C									
B									
A	502	ADD HYDRAULICS TO B.O.M.	TAT	11-20-00			28031F00	28031F00	
REV	ECD	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN: DV	DATE: 6-97	NEXT ASS'Y	FINAL ASS'Y
TITLE: MODEL P600 - 3 - B					DECIMAL: XX 1/4 - 02	CHECKER: _____ SCALE: 15:1 DESIGN: F.J.L.	SHEET 1 OF 1	DWG. NO. 28031F00	
MATERIAL:					DECIMAL: XXX 1/4 - 005				
					FRACTIONS: 1/4 - 1/16				

ITEM	Level 1	Level 2	Level 3	Level 4	Description	Qty
1.0	28031F00				Final Assembly of Power Pack ( P600 )	1
	28210A00				Hydraulic Schematic & Major Parts (P400 & P600)	1
	28215A00				Electrical Schematic & Major Parts (P400 & P600)	1
2.0	28102A00				Power Pack Frame Assembly (3 Reservoir-3 Power Module)	1
		28122A00			Power Pack Frame Weldment (3 Reservoir-3 Power Module)	1
		28181A00			Pump Suction Assembly	5
		28183A00			Heat Exchanger Pump to Motor, 5 Hp	1
			28189A00		Suction Weldment	1
		28184A00			Single Heat Exchanger & Connections	1
		28270A00			Local Control / Junction Box	1
			28275A00		Speed Control Module	1
				28276A00	Speed Control Module Circuit Board	1
			28268A00		Junction Box Shorting Plug	1
		28190A00			Light Assembly	2
3.0	28221A00				Frame Electrical Assembly, 415 Vac, 50 hz, British Model	1
4.0	28135A00				Power Module Assembly - 100 Hp, Dual Gear Pump - Low Psi	
		28165A00			Power Module Weldment - 100 Hp Low Psi, Dual Pump	
		28151A00			Pump to Motor - 100 Hp, Dual Gear Pump - Low Psi	
		28252A00			Disconnect / StarterPanel 100 Hp	
		28240A00			Power Module Electrical Connections to Frame, 100 HP - Low Psi	
		28200A00			Hydraulic Connections to reservoir, Dual Gear Pump - Low Psi	
4.0	28136A00				Power Module Assembly - 100 Hp, Triple Gear Pump, Low Psi	
		28166A00			Power Module Weldment - 100 Hp Low Psi, Triple Pump	
		28152A00			Pump to Motor - 100 Hp, Triple Gear Pump - Low Psi	
		28252A00			Disconnect / StarterPanel 100 Hp	
		28240A00			Power Module Electrical Connections to Frame, 100 HP - Low Psi	
		28201A00			Hydraulic Connections to reservoir, Triple Gear Pump - Low Psi	
4.0	28137A00				Power Module Assembly - 200 Hp, 6033 Pump - High Psi	
		28167A00			Power Module Weldment - 200 Hp High Psi	
		28153A00			Pump to Motor - 200 Hp, 6033 Piston Pump - High Psi	
		28151A00			Disconnect / Starter Panel 200 Hp	
		28241A00			Power Module Electrical Connections to Frame, 200 HP - High Psi	
		28202A00			Hydraulic Connections to reservoir, 6033 Piston Pump - High Psi	
4.0	28138A00				Power Module Assembly - 100 Hp, 6033 Pump - High Psi	
		28168A00			Power Module Weldment - 100 Hp High Psi	
		28154A00			Pump to Motor - 100 Hp, 6033 Piston Pump - High Psi	
		28252A00			Disconnect / StarterPanel 100 Hp	
		28242A00			Power Module Electrical Connections to Frame, 100 HP - High Psi	
		28202A00			Hydraulic Connections to reservoir, 6033 Piston Pump - High Psi	
4.0	28139A00				Power Module Assembly - 100 Hp, 4020 Pump - High Psi	
		28168A00			Power Module Weldment - 100 Hp High Psi	
		28155A00			Pump to Motor - 100 Hp, 4020 Piston Pump - High Psi	
		28252A00			Disconnect / StarterPanel 100 Hp	
		28242A00			Power Module Electrical Connections to Frame, 100 HP - High Psi	
		28203A00			Hydraulic Connections to reservoir, 4020 Piston Pump - High Psi	
		28186A00			RPA Charge Pump and Connections	
		28188A00			2 Section Function Selector, High Psi	
4.0	28140A00				Power Module Assembly - 50 Hp, 4020 Pump - High Psi	
		28169A00			Power Module Weldment - 50 Hp High Psi	

ITEM	Level 1	Level 2	Level 3	Level 4	Description	Qty
		28156A00			Pump to Motor - 50 Hp, 4020 Piston Pump - High Psi	
		28153A00			Disconnect / Starter Panel 50 Hpi	
		28243A00			Power Module Electrical Connections to Frame, 50 HP - High Psi	
		28203A00			Hydraulic Connections to reservoir, 4020 Piston Pump - High Psi	
		28186A00			RPA Charge Pump and Connections	
		28188A00			2 Section Function Selector, High Psi	
5.0	28271A00				Control Pendant with 5 Ft. Cable- High Psi System	
5.0	28272A00				Control Pendant with 5 Ft Cable- Low Psi System	
6.1	28273A00				Control Pendant Extension Cable X 100 Ft.	
6.2	28185A00				Additional Heat Exchanger & Connections	
6.3	28180A00				RT8 Filter and Return Flow Connections	
		28191A00			RT8 Filter Weldment & Installation	
			8003A00		Filter Base Assembly	
6.4	28179A00				Tank Divider Assembly	
6.5	28182A00				Level / Temp Indicator Assembly & Connections	
		28193A00			Level Sensor Assembly	
		28192A00			Sight Gauge Installation	
7.1	28280A00				TBM Power & E-Stop, 110 Vac to Ground Connections	
		28281A00			TBM Power & E-Stop Panel, 110 Vac to Ground	
		28279A00			TBM Junction Box, 110 Vac	
		28283A00			Electrical Schematic TBM & E Stop 110Vac to Ground	
7.1	28284A00				TBM Power & E-Stop, 110 Vac -55 Vac to Ground Connections	
		28285A00			TBM Power & E-Stop Panel, 55 Vac to Ground	
		28287A00			TBM Junction Box, 55 Vac to Ground	
		28286A00			Electrical Schematic TBM & E Stop 110Vac, 55 Vac to Ground	
7.2	A20510A0				Head Power Cord x 100 Ft. (6 Conductor)	
7.3	28282A00				Remote E-Stop with Lockout	



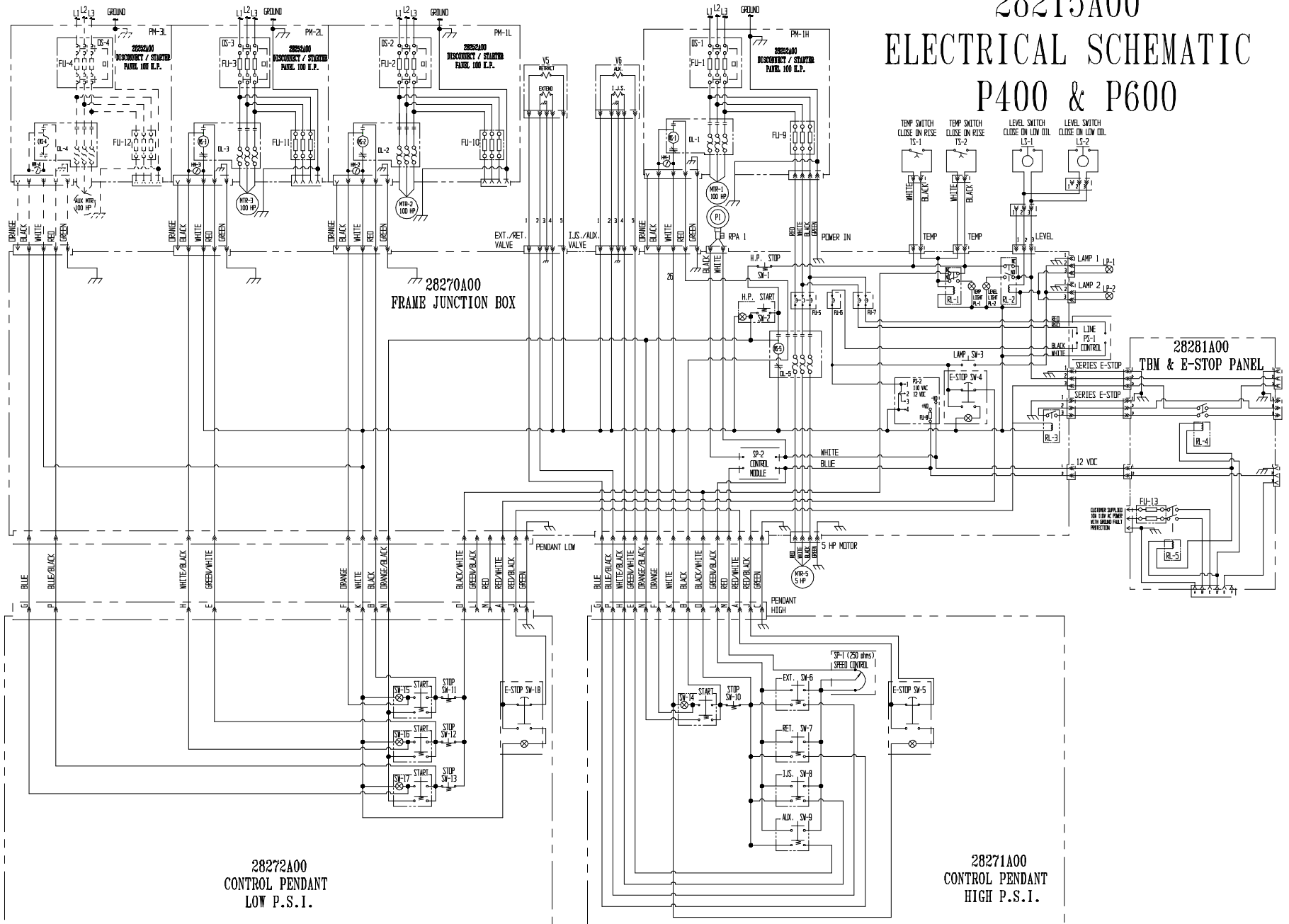
HYDRAULIC RESERVOIRS ( MODEL P-600 SHOWN )



P400 & P600 POWER PACK HYDRAULIC SCHEMATIC & MAJOR PARTS (28210A00)

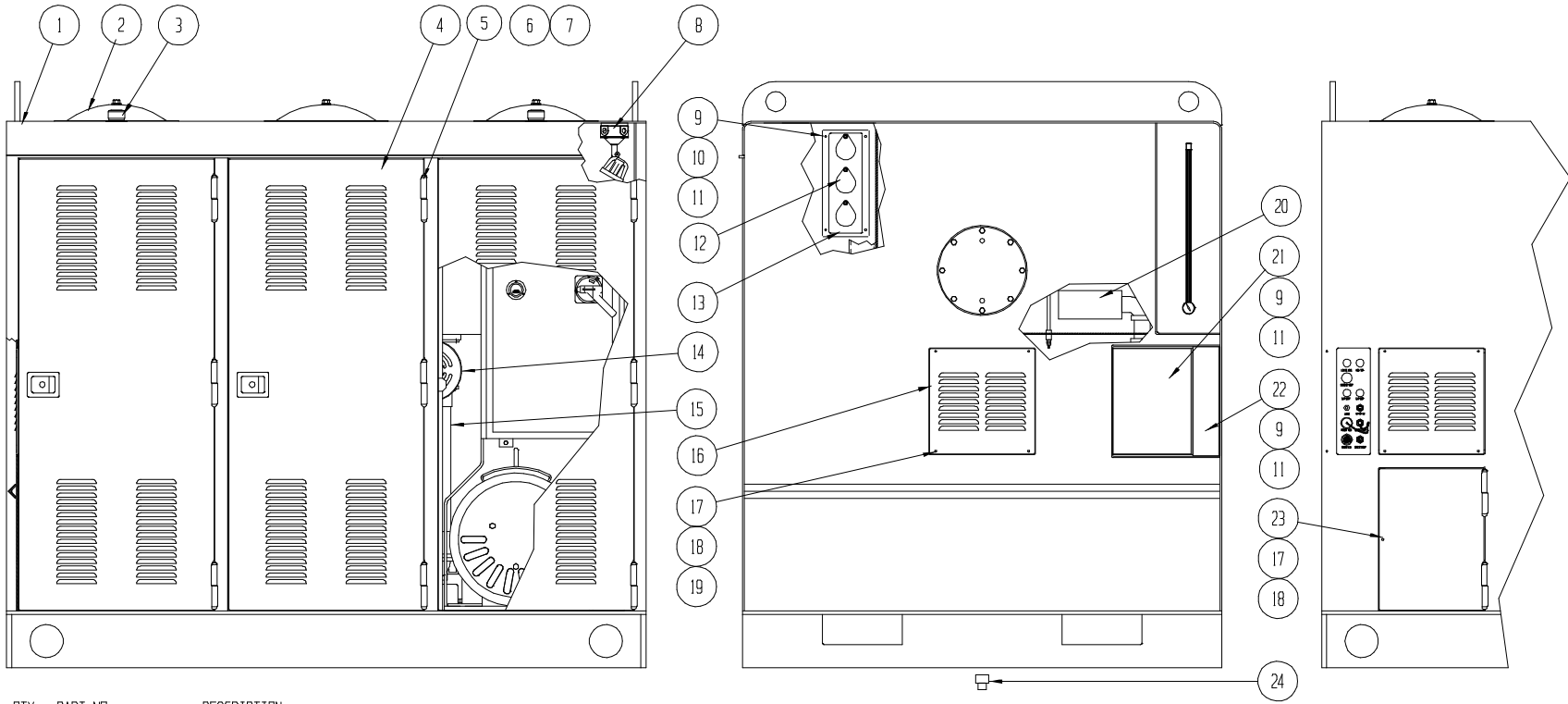
PART NO.	DESCRIPTION
302-208	2" BALL VALVE
308-100	BREATHER FILTER
305-141A,B,C	SHAFT COUPLING
305-144A,B,C	SHAFT COUPLING
305-112A,B,D	SHAFT COUPLING
302-316	7/8"-14 CHECK VALVE
302-101	1/4" NPT CHECK VALVE
309-126	1-1/2" NPT CHECK VALVE
302-346	1" NPT CHECK VALVE
302-315	DOUBLE PILOT OPERATED CHECK VALVE
309-166	FILTER ELEMENT
309-102	FILTER ELEMENT
308-105	18" END COVER
309-165	FILTER
8030A00	RT-8 FILTER ASSEMBLY
309-165	FILTER INDICATOR
301-105	FILTER INDICATOR
301-101	15,000 PSI GAUGE
301-100	5,000 PSI GAUGE
301-110	600 PSI GAUGE
201-159	2" SUCTION HOSE
	1/2" HOSE ASSEMBLY
	1-1/4" HOSE ASSEMBLY
	1-1/4" HOSE ASSEMBLY
	3/8" HOSE ASSEMBLY
A10310A0	3/8" HOSE ASSEMBLY
A10420A0	1/2" HIGH PRESSURE HOSE
A10340A0	1" HOSE ASSEMBLY
A10340A0	1" HOSE ASSEMBLY
A10340A0	1" HOSE ASSEMBLY
93-6	WATER OVER OIL HEAT EXCHANGER
56-39	LOW OIL LEVEL SWITCH
A10201P0	MANIFOLD BLOCK
310-163	100 HP ELECTRIC MOTOR
310-599	5 HP ELECTRIC MOTOR
303-227	VARIABLE DISPLACEMENT PISTON PUMP
303-237	GEAR PUMP
303-235	GEAR PUMP
303-236	DOUBLE SECTION GEAR PUMP
28135A00	100 HP,DUAL PUMP POWER MODULE ASSEMBLY
28139A00	100 HP TO PV4020 POWER MODULE ASSEMBLY
100-12A	3/4" NPT FEMALE QUICK COUPLER
100-12B	3/4" NPT MALE QUICK COUPLER
5348P00	1-1/4" FEMALE QUICK COUPLER
4899P00	1-1/4" MALE QUICK COUPLER
100-21	2" NPT QUICK COUPLER
299-2	ELECTRIC REMOTE PROPORTIONAL ACTUATOR
299-3	RPA MOUNTING BRACKET
299-4	RPA STEM COUPLER
299-5	RPA ADJUSTING SCREW
302-288	RELIEF VALVE
302-157	RELIEF VALVE
302-269	RELIEF VALVE
302-306	RELIEF VALVE
309-153	SUCTION STRAINER
301-134	OIL LEVEL SIGHT GAUGE
56-75	OVER TEMPERATURE SWITCH
302-348	VALVE
302-345	VALVE

# 28215A00 ELECTRICAL SCHEMATIC P400 & P600



ITEM	PART NO.	DESCRIPTION
DS 1-4	310-628	DISCONNECT SWITCH
FU 1-4	310-213	150 AMPERE FUSE
FU 5	310-600	10 AMPERE FUSE
FU 6	310-668	6 AMPERE FUSE
FU 7	310-668	6 AMPERE FUSE
FU 8	310-512	1.6 AMPERE RESETTABLE FUSE
FU 9-12	310-347	TYPE FLRSR 15 AMPERE FUSE
FU 13	310-625	10 AMP MIDGET SLO-BLO FUSE
HM 1-4	310-260	HOUR METER
LP 1-2	53-18	150 WATT LAMP
LS 1	56-39	LOW OIL LEVEL SWITCH
MS 1-4	310-603	MOTOR STARTER
MS 5	310-599A	MOTOR STARTER
MTR 1-4	310-163	ELECTRIC MOTOR, 100 HP
MTR 5	310-599	ELECTRIC MOTOR, 5 HP
OL 1-4		OVERLOAD RELAY, 100-135 AMPERE
OL 5	310-399D	OVERLOAD RELAY
P 1	303-227	VARIABLE DISPLACEMENT PISTON PUMP
PL 1-2	56-129	PILOT LAMP
PS 1	*	POWER SUPPLY, 2 KVA. LINE VOLTAGE PRIMARY, 110 / 120 VAC SECONDARY
PS 2	310-609	POWER SUPPLY, 1.7 AMPERE. 110 VAC PRIMARY, 12 VDC SECONDARY
RL 1-3	56-89	RELAY, 110 VAC COIL
RL 4-5	56-88	RELAY, 12 VDC COIL
RPA 1	299-2	REMOTE PROPORTIONAL ACTUATOR
SP 1	310-334	POTENTIOMETER, 250 OHM
SP 2	28275A00	SPEED CONTROL MODULE ASSEMBLY
SW 1,10-13		STOP SWITCH
	310-417A	PUSH BUTTON OPERATOR
	56-123	RED CAP
	56-120	3 ACROSS MOUNTING LATCH
	56-122	NC CONTACT BLOCK
SW 2,14-17		START SWITCH
	310-411	PUSH BUTTON OPERATOR (GREEN)
	56-120	3 ACROSS MOUNTING LATCH
	56-121	NO CONTACT BLOCK
SW 3	56-9	TOGGLE SWITCH
SW 4-5,18		EMERGENCY STOP SWITCH
	310-420	MUSHROOM HEAD PUSH-PULL OPERATOR
	56-120	3 ACROSS MOUNTING LATCH
	56-122	NC CONTACT BLOCK
	56-121	NO CONTACT BLOCK
SW 6-9		FUNCTION SWITCH
	310-417A	PUSH BUTTON OPERATOR
	56-116	BLUE CAP
	56-120	3 ACROSS MOUNTING LATCH
	56-121	NO CONTACT BLOCK
TS 1-2	56-75	OVER TEMPERATURE SWITCH
V 5-6	302-348	SOLENOID OPERATED VALVE

( PS-1 PART NUMBER DEPENDENT ON LINE VOLTAGE USED )



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	2B122A00	POWER PACK FRAME WELDMENT
2	3	P0308-105	18" END COVER KIT
3	2	P0308-100	FILLER BREATHER
4	3	2B310P00	DOOR
5	3	P0059-020	DOOR LATCH
6	15	P0052-008	HINGE (R140-0180)
7	1	P0253-017	WEATHER STRIPPING X 50'
8	2	2B190A00	LAMP ASSEMBLY
9	13	P0001-06-003	3/8" NC HEX BOLT X 3/4"
10	7	P0003-06-000	3/8" NC HEX NUT
11	13	P0045-006	3/8" LOCKWASHER
12	3	2B389P00	COVER, POWER CORD OPENING
13	1	2B388P00	MOUNT, POWER CORD
14	1	2B1B3A00	HEAT EXCHANGER PUMP TO MOTOR
15	1	2B1B4A00	SINGLE HEAT EXCHANGER & CONNECTIONS
16	5	2B312P00	ACCESS PANEL
17	23	P0043-001	WASHER
18	23	P0017-14-205	1/4" NC FLAT HEAD MACHINE SCREW X 1"
19	1	P0253-018	WEATHER STRIPPING X 50'
20	5	2B1B1A00	PUMP SUCTION ASSEMBLY
21	1	2B270A00	LOCAL CONTROL / JUNCTION BOX
22	1	2B397P00	CONTROL BOX ACCESS BAR
23	3	2B314P00	ACCESS DOOR
24	1	P0416-008	2" NPT SQUARE HEAD PLUG

05					
04					
03					
02					
01					
REV	ECD	REVISION RECORD	BY	DATE	
TITLE: MODEL P600 FRAME ASSEMBLY, 3 RESERVOIRS - 3 POWER MODULES					
MATERIAL NOTED					



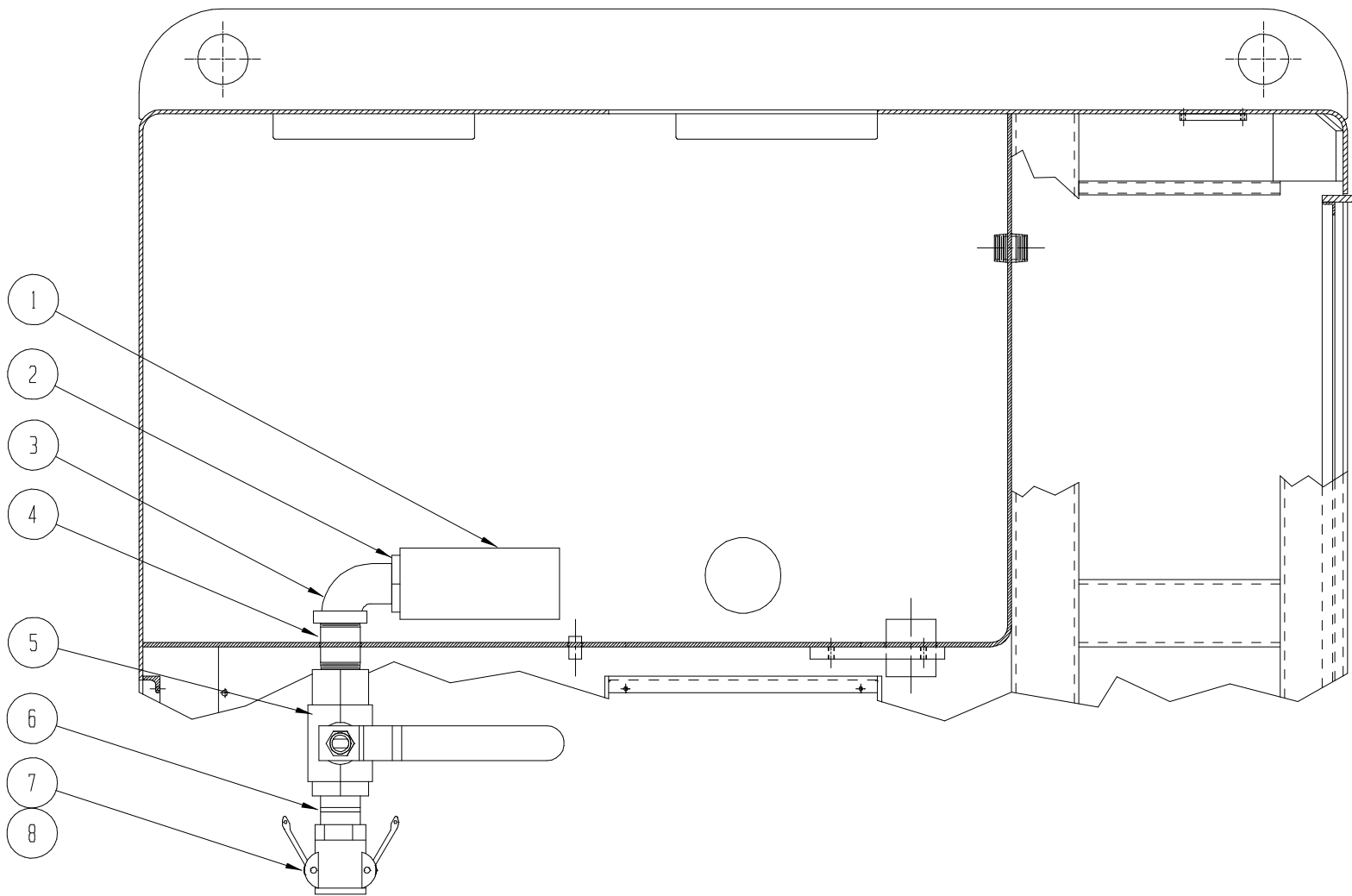
AKKERMAN MFG., INC.  
 BROWNSDALE, MN 55918  
 TEL. 507-567-2262

TOLERANCES UNLESS NOTED	DRAWN DV	DATE 6-97	NEXT ASSEMBLY	FINAL ASSEMBLY
DECIMAL .XX +/- .02	CHECK	SCALE 1 TO 1	DWG. 28102A00	
DECIMAL .XXX +/- .005	DESIGN F.JL	SHEET 1 OF 1	NO. 28102A00	
ANGLES +/- 1°				
FRACTIONS +/- 1/16				
CHAMFER ALL SHARP EDGES 1/32 X 45°				
ANGLES +/- .30°				






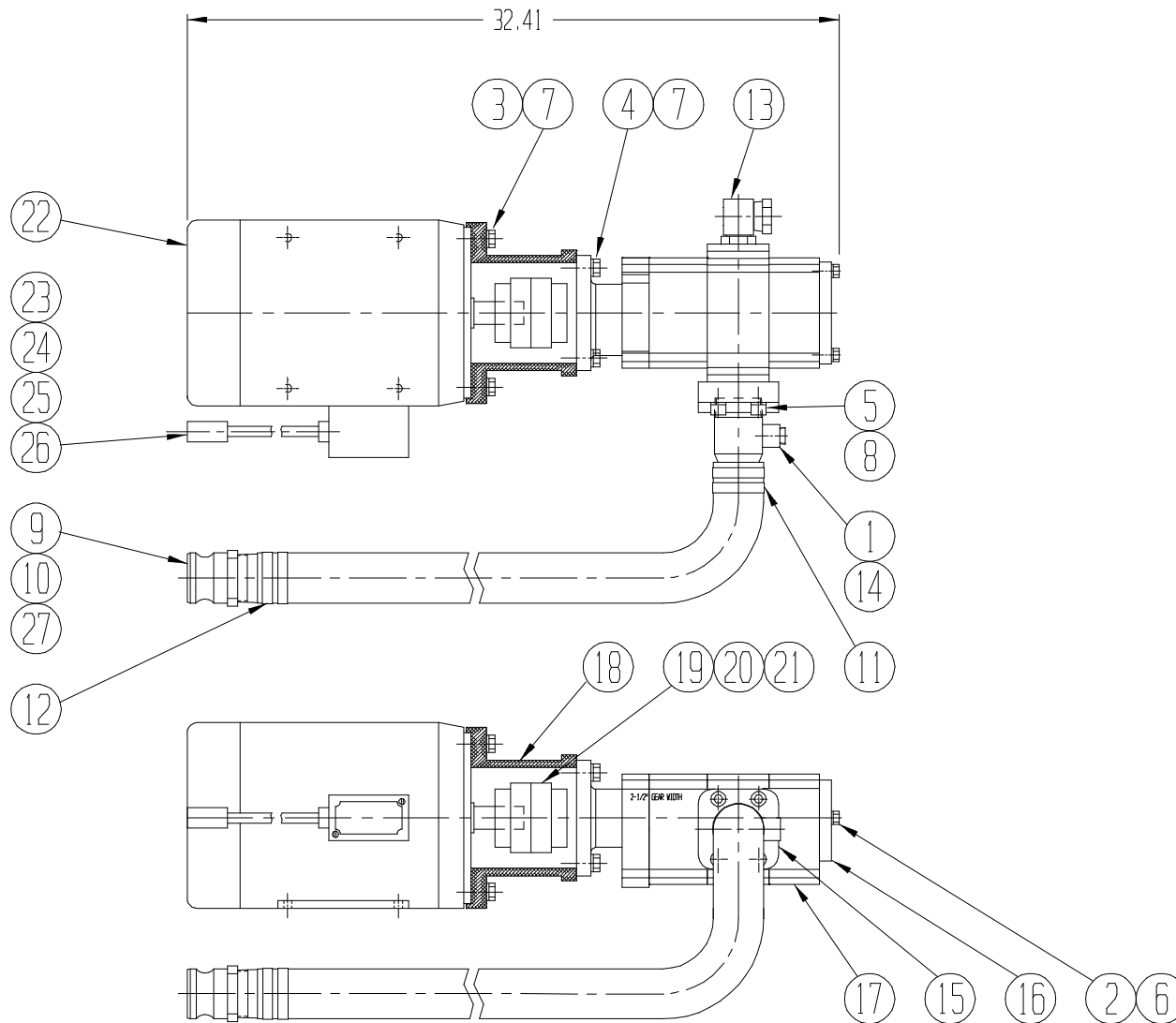
ITEM NO.	PART NO.	DESCRIPTION OF MATERIALS	QTY
01	28359P00	.12 THK X 2.00" BAR X 1.25" LONG	3
02	28360P00	.25" THK A36 SHOT BLAST & OIL PLT (96.0" X 149.43")	1
03	28361P00	.25" THK A36 SHOT BLAST & OIL PLT (82.96" X 92.50")	1
04	28362P00	.25" THK A36 P & O PLATE (72.50" X 74.25") CAM	1
05	28363P00	.25" THK A36 P & O PLATE (72.50" X 74.25") CAM	1
06	28364P00	.25" THK A36 P & O PLATE (32.50" X 52.50") CAM	2
07	28365P00	.75" THK T-1 (A514) PLATE (7.67" X 73.0") CAM	2
08	28366P00	.50" THK A36 SHOT BLAST & OIL PLATE (72.00" X 96.0")	1
09	28367P00	8.0" A36 C-CHANNEL X 22.8 LB / FT. X 94.38" LONG	2
10	28368P00	8.0" A36 C-CHANNEL X 22.8 LB / FT. X 94.38" LONG	2
11	28369P00	.18" THK A36 P & O PLATE (24.0" X 95.50") (CAM)	1
12	28370P00	.75" THK A36 PLATE (9.0" X 73.0") CAM	2
13	28371P00	2.0" X 4.0" X .25" THK A513 RECT TUBE X 11.88" LONG	2
14	28372P00	2.0" X 4.0" X .25" THK A513 RECT TUBE X 73.13" LONG	2
15	28373P00	2.0" X 4.0" X .25" THK A513 RECT TUBE X 73.13" LONG	2
16	28374P00	.25" THK X 1.75" A36 BAR X 68.0" LONG	2
17	28375P00	.50 THK X 4.00" A36 BAR X 8.00" LONG	4
18	28376P00	.50" THK X 4.50" A36 BAR X 41.38" LONG	5
19	28377P00	.50 THK A36 PLATE (17.13 X 42.38") (CAM)	1
20	28378P00	.18 THK A36 P & O PLATE (9.0" X 58.75")	1
21	28379P00	.38" THK X 4.00" A36 BAR X 4.00" LONG	2
22	28380P00	.25" THK X .75" A36 BAR X 16.00" LONG	4
23	28381P00	1.0" X 1.0" X .25" THK A36 ANGLE IRON X 16.00" LONG	10
24	28382P00	1.0" X 1.0" X .25" THK A36 ANGLE IRON X 21.38" LONG	3
25	28383P00	1.50" X 1.50" X .25" A36 ANGLE IRON X 71.38" LONG	2
26	28384P00	.75" THK X 8.0" A36 BAR X 9.0" LONG	1
27	28385P00	.75" THK X 1.5" A36 BAR X 8.0" LONG	4
28	28386P00	.50 " SCH NO. 80 PIPE X 11.88" LONG	2
29	28387P00	.25" THK X 1.50" A36 BAR X 41.16" LONG	2
30	28392P00	4.0" X 8.0" X .50" THK A36 ANGLE IRON X 16.00" LONG	3
31	28393P00	.50" THK X 2.0" A36 BAR X 16.00" LONG	3
32	28394P00	.75" X .75" X .13 THK A36 ANGLE IRON X 68.00" LONG	3
33	28395P00	.38" THK X 2.0" A36 BAR X 96.00" LONG	1
34	28396P00	.75" X .75" X .13 THK A36 ANGLE IRON X 29.38" LONG	3
35	P0400-001	.25" NPT PIPE COUPLER	5
36	P0400-006	1.25 " NPT PIPE COUPLER	6
37	P0400-008	2.0" NPT PIPE COUPLER	2
38	P0408-001	1.25" SCH 40 PIPE NIPPLE X 2.00" LONG	2
39	P0409-011A	2" SCH 40 PIPE NIPPLE X 3.50" LONG	5
40	P0308-104	18" REMOVABLE END COVER BRACKET	3
41	P0052-008	HINGE	REF



NOTE: GLUE ITEM #7 INTO ITEM #8.

05												
04												
03												
02												
01												
REV	ECC	REVISION RECORD			BY	DATE	TOLERANCES UNLESS NOTED	DRAWN F.J.L.	DATE 3-96	NEXT ASSEMBLY	FINAL ASSEMBLY	
TITLE PUMP SUCTION ASSEMBLY - MODEL P400 & P600 POWER PACK							DECIMAL XX 1/2-.02	 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262	SCALE 1 TO 1	DWG. NO.	28181A00	
MATERIAL NOTED							FRACTIONS 1/2-1/16		CHECK	SHEET 1 OF 1	THRU	28050F00
							ANGLES 1/2-1°		DESIGN F.J.L.			
							CHAMFER ALL SHARP EDGES 1/32 X 45°					
							ANGLES 1/2-30°					

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	P0309-153	2 1/2 NPT SUCTION STRAINER
2	1	P0413-015	2 1/2 NPT X 2 NPT REDUCER
3	1	P0412-008	2 NPT STREET ELBOW
4	0	P0409-011A	2 NPT NIPPLE X 3 1/2
5	1	P0302-208	2 NPT BALL VALVE
6	1	P0402-008	2 NPT CLOSE NIPPLE
7	1	P0100-021	2 QUICK COUPLER
8	1	P0100-025A	2 RUBBER GASKET



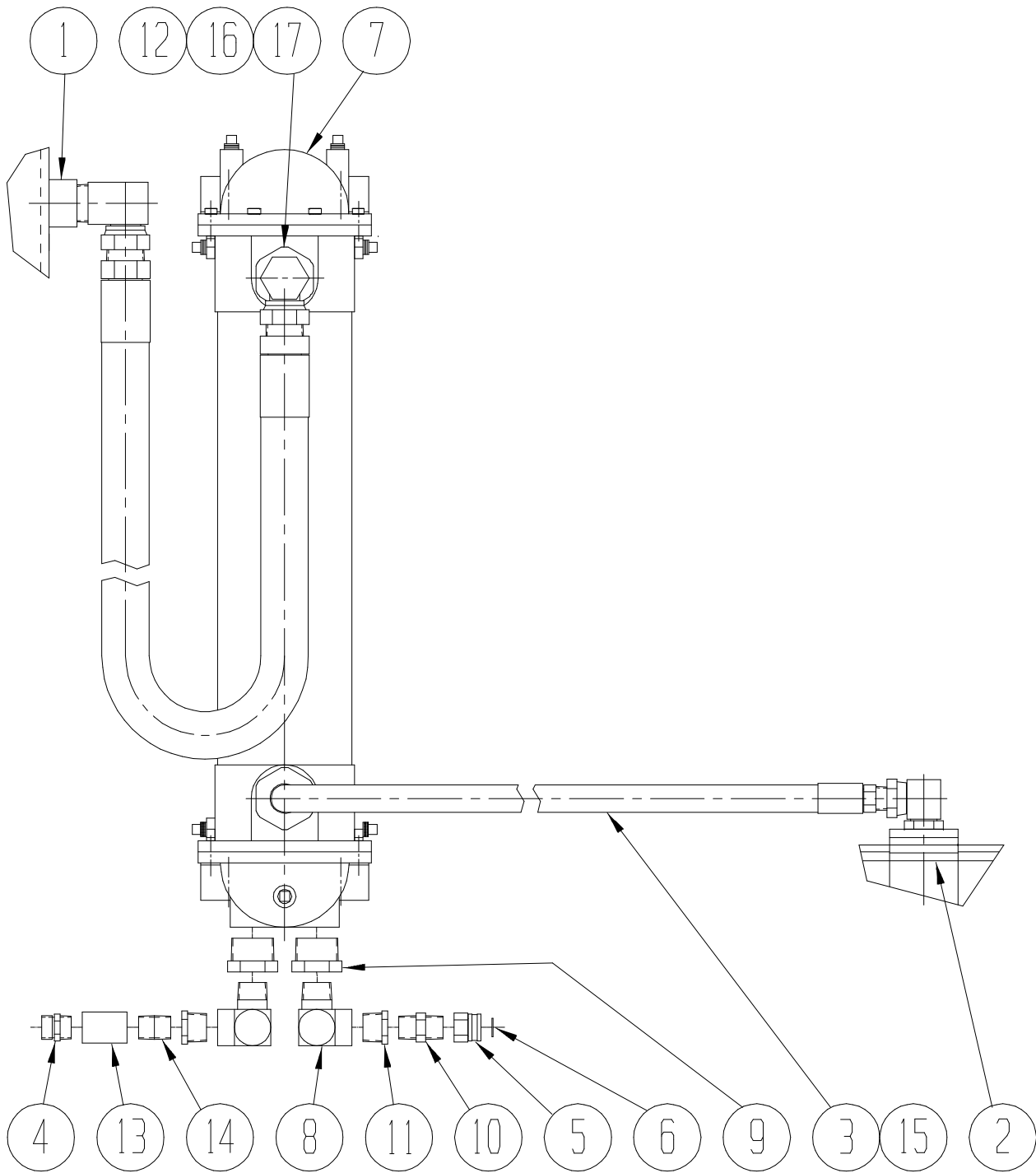
05					
04					
03					
02					
01					
REV	ECD	REVISION RECORD	BY	DATE	
TITLE HEAT EXCHANGER PUMP TO MOTOR, 5 HP - MODEL P400 & P600					
MATERIAL NOTED					




AKKERMAN MFG., INC.  
 BROWNSDALE, MN 55918  
 TEL. 507-567-2262

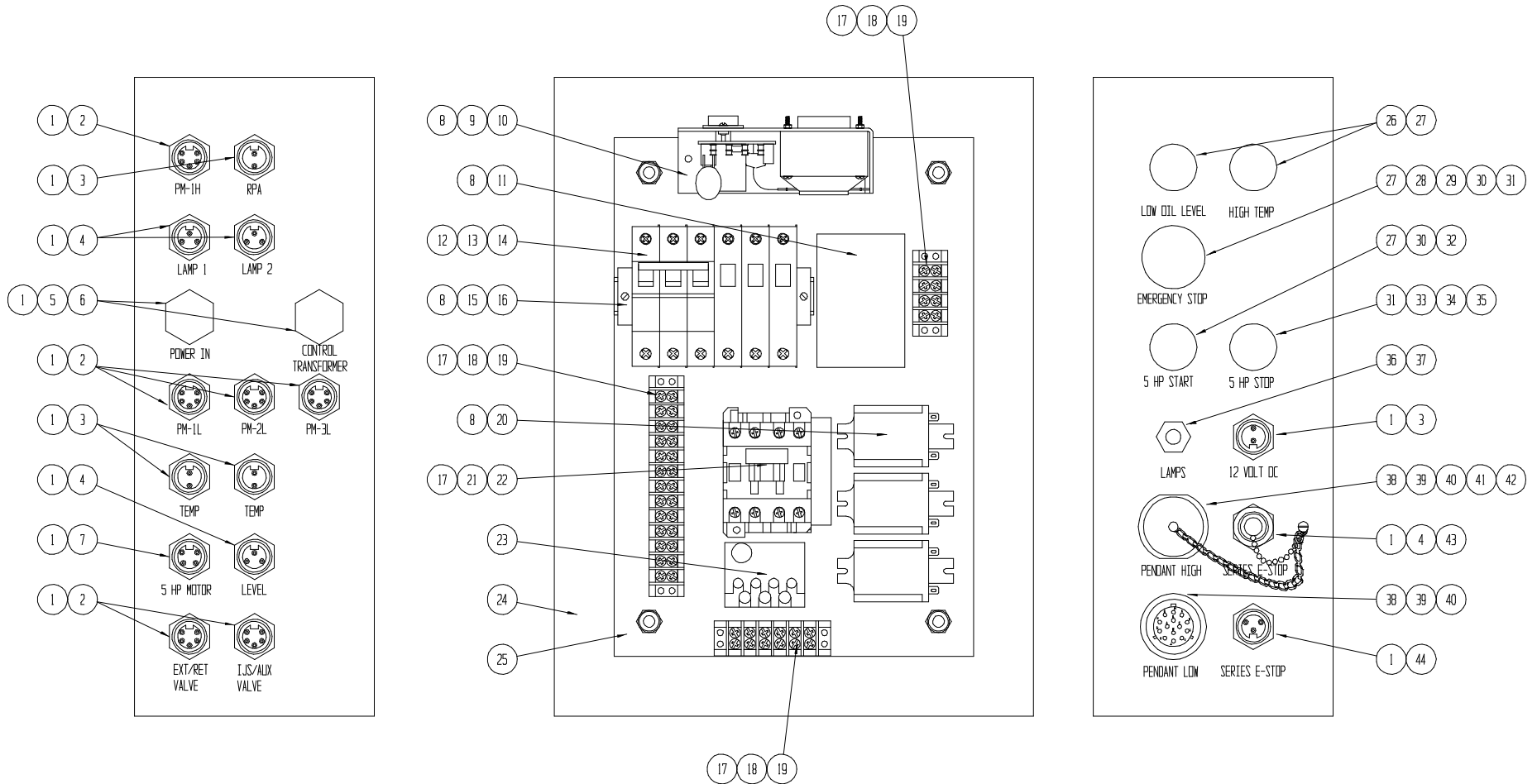
TOLERANCES UNLESS NOTED	DRAWN GNV	DATE 5-97	NEXT ASSEMBLY	FINAL ASSEMBLY
DECIMAL XX 1/100	CHECK	SCALE 1 TO 1	DWG. 28183A00	
DECIMAL XXX 1/1000	DESIGN FJL	SHEET 1 OF 1	NO. 28183A00	
ANGLES 1/4°				
FRACTIONS 1/16				

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	28189A00	SUCTION WELDMENT
2	2	P0001-06-005	3/8-16 X 1 1/4 HEX BOLT
3	4	P0001-08-005	1/2-13 X 1 1/4 HEX BOLT
4	4	P0001-08-006	1/2-13 X 1 1/2 HEX BOLT
5	4	P0031-08-008	1/2-13 X 2 SHCS
6	2	P0045-006	3/8 LOCK WASHER
7	8	P0045-008	1/2 LOCK WASHER
8	4	P0046-008	1/2 HI-COLLAR LOCK WASHER
9	1	P0100-022	2 FPT PLUG
10	1	P0201-150	2 GATES HOUSE X 41
11	2	P0201-180	2 T-BOLT CLAMP
12	2	P0201-181	2 1/2 T-BOLT CLAMP
13	1	P0300-052	FITTING
14	1	P0300-079	1/2 NPT PLUG
15	1	P0302-347	FLANGE
16	1	P0303-170	COVER PLATE
17	1	P0303-237	GEAR PUMP
18	1	P0303-237A	PUMP TO MOTOR ADAPTOR
19	1	P0305-144A	DRIVE COUPLER
20	1	P0305-144B	DRIVE COUPLER
21	1	P0305-144C	INSERT
22	1	P0310-599	5 HP MOTOR
23	1	P0311-018	1/2-13 LOCK NUT
24	1	P0311-032	1/2 PLASTIC NUT
25	1	P0311-040	1/2 STRAIN RELIEF
26	1	P0313-048	4 PIN MINI MALE PIGTALE X 6 Ft.
27	1	P0423-001	2 NPT MALE




05													
04													
03													
02													
01													
REV	ECD	REVISION RECORD			BY	DATE	 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262						
TITLE SINGLE HEAT EXCHANGER AND CONNECTIONS - MODEL P400 & P600							TOLERANCES UNLESS NOTED	DRAWN GNV	DATE 5-97	NEXT ASSEMBLY	FINAL ASSEMBLY		
MATERIAL NOTED							DECIMAL .XX +/- .02 DECIMAL .XXX +/- .005 ANGLES +/- 1° FRACTIONS +/- 1/16	CHECK DESIGN GNV	SCALE 1 TO 1 SHEET 1 OF 1	DWG. NO.	28184A00	28031F00	28011F00

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	0	28180A00	RT8 FILTER & RETURN FLOW CONN.
2	0	28182A00	HEAT EXCHANGER PUMP TO MOTOR 5 HP
3	1	A10340A0-040	1 HOSE X 40
4	1	P0093-003	HOSE FITTING
5	1	P0093-004	HOSE FITTING
6	1	P0093-005	WASHER FOR HOSE CONNECTOR
7	1	P0093-006	HEAT EXCHANGER
8	2	P0300-057	1 NPT 90 STREET ELBOW
9	2	P0300-077	1 1/2 NPT X 1 NPT REDUCER BUSHING
10	1	P0300-107	3/4 NPT HEX NIPPLE
11	2	P0300-133	1 NPT X 3/4 NPT REDUCER BUSHING
12	2	P0300-179	1 1/4 NPTF MALE X 1 1/4 NPSM 90
13	1	P0400-004	3/4 PIPE COUPLING
14	1	P0402-004	3/4 CLOSE NIPPLE
15	1	P0413-010	2 X 1 HEX BUSHING
16	1	P0413-011	2 X 1 1/4 HEX BUSHING
17	1	P0520-070	1 1/4 HOSE W/1 1/4 MALE ENDS X 70
18	4	P0001-06-003	3/8-16 X 3/4 HEX BOLT (NOT SHOWN)
19	4	P0039-006	3/8 FLAT WASHER (NOT SHOWN)
20	4	P0045-006	3/8 LOCK WASHER (NOT SHOWN)

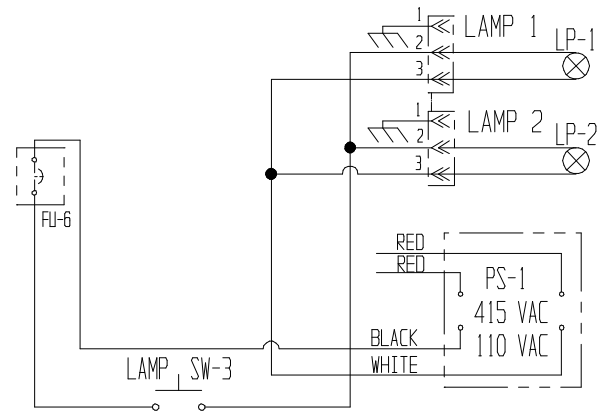
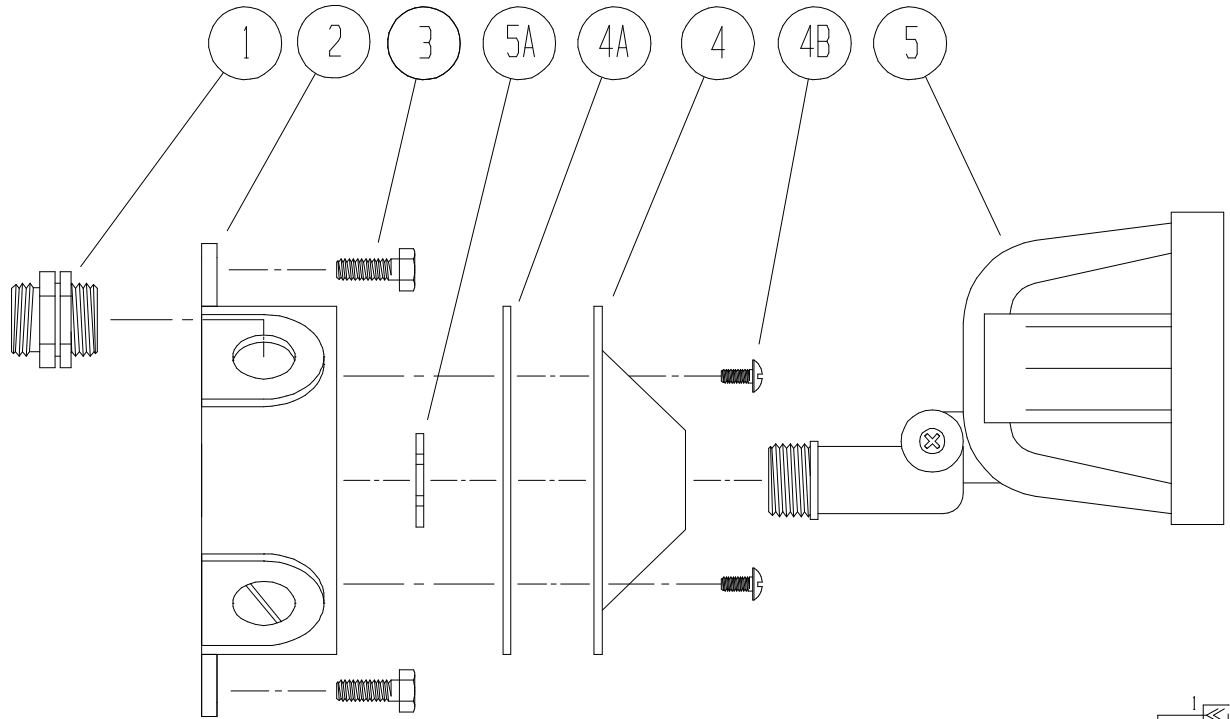


NOTES:


1. SOLDER P0310-512 TO DC OUTPUT OF P0310-609.
2. TIE WRAP 12 V DC WIRE OUT OF P0310-512 TO P0310-609.
3. MOUNT 28275A00 WITH OPENING TO THE RIGHT.

05						 AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261						
04							28100A00	28000F00				
03							THRU	THRU				
02							28103A00	28035F00				
01	-	REPLACE 310-601,602 w/ 310-473B, 310-668	DJP	11-98								
REV	ECD	REVISION RECORD		BY	DATE	TOLERANCES UNLESS NOTED	DRAWN	DJP	DATE	5-97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE						LOCAL CONTROL / JUNCTION BOX	CHECK		SCALE	1 TO 1	DWG.	28270A00
MATERIAL						SEE BILL OF MATERIAL	DESIGN		SHEET	1 OF 1	NO.	
						DECIMAL .XX +/- .02 DECIMAL .XXX +/- .005 ANGLES +/- 1° FRACTIONS +/- 1/16	CHAMFER ALL SHARP EDGES 1/32 X 45° ANGLES +/- 30°					

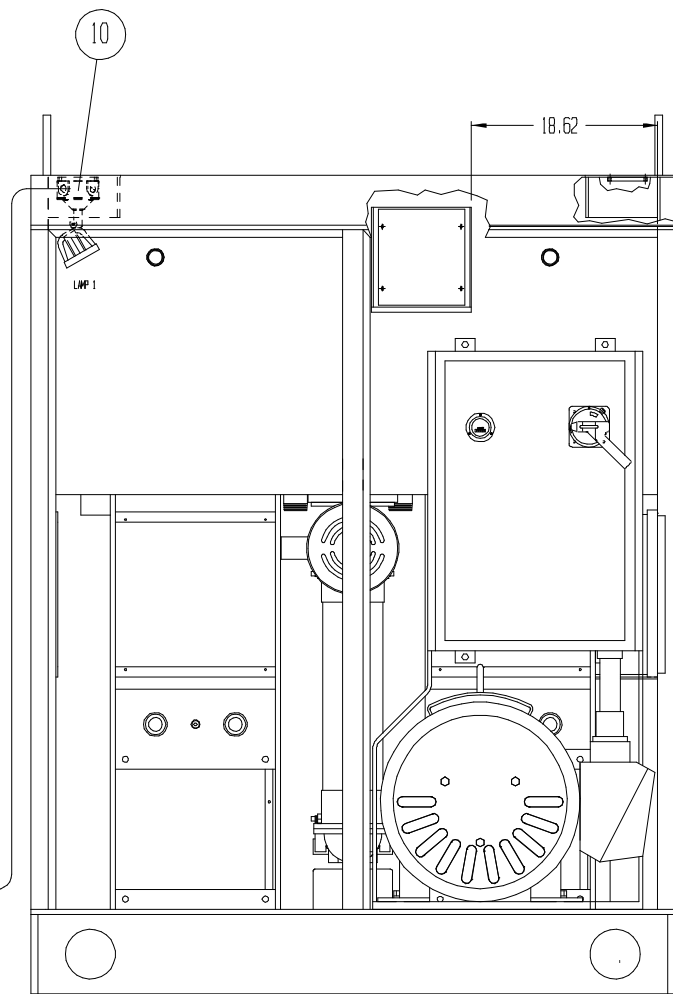
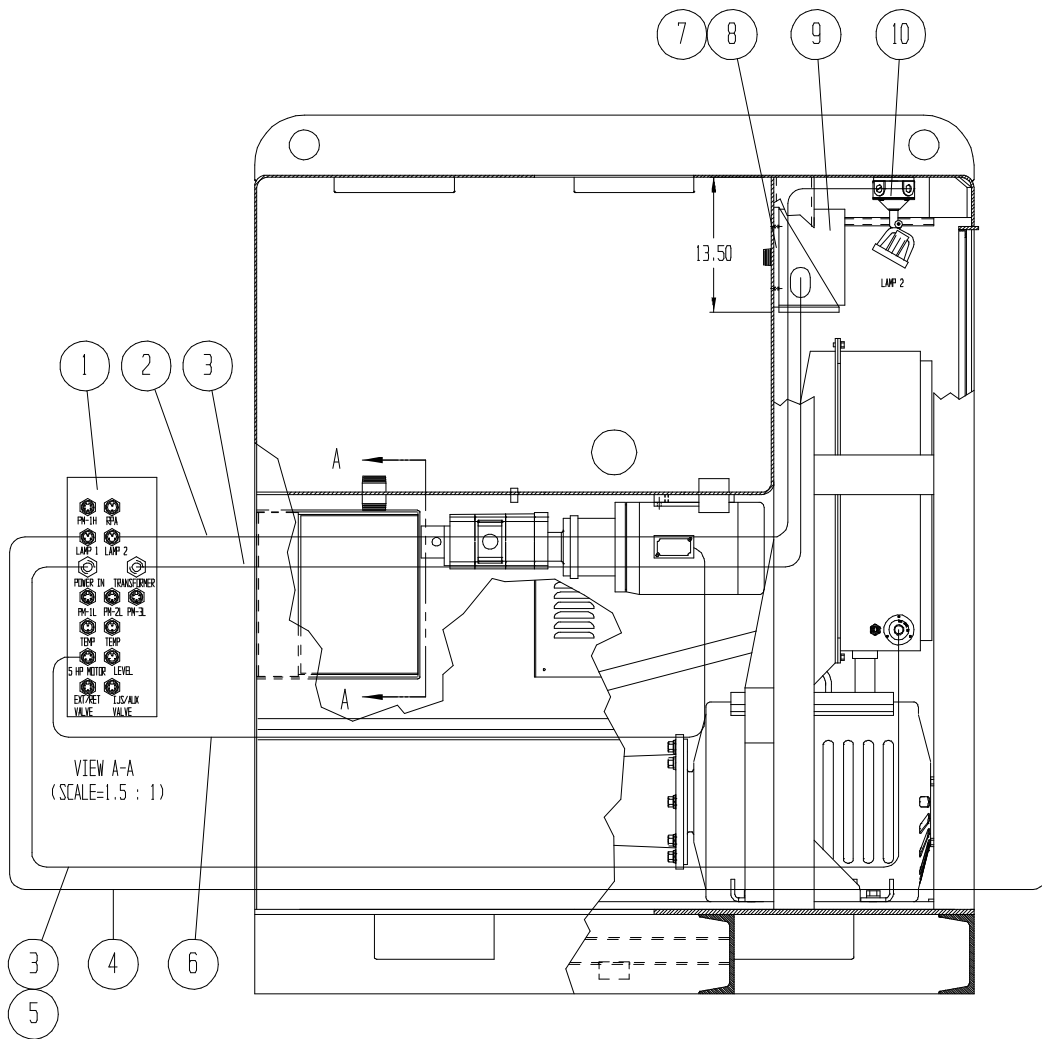
ITEM NO.	PART NO.	DESCRIPTION OF MATERIALS	QTY
01	P0311-018	1/2" LOCK NUT	18
02	P0054-073B	5 PIN FEMALE MINI RECEPTACLE	6
03	P0313-044	2 PIN FEMALE MINI RECEPTACLE	4
04	P0054-068	3 PIN FEMALE MINI RECEPTACLE	4
05	P0311-051	1/2" STRAIN RELIEF	2
06	P0311-032	1/2" INSULATING BUSHING	2
07	P0313-049	4 PIN FEMALE MINI RECEPTACLE	1
08	P0020-08-322	#8-32 TRUSS HEAD SCREW X 3/8"	12
09	P0310-609	POWER SUPPLY, 1.7A, 110VAC TO 12VDC	1
10	P0310-512	1.6 AMP RESETTABLE FUSE	1
11	28275A00	SPEED CONTROL MODULE	1
12	P0310-600	10 AMP 3 POLE CIRCUIT BREAKER	1
13	P0310-473B	DIN RAIL FUSE HOLDER	3
14	P0310-668	6 AMP FUSE	3
15	P0310-560	DIN RAIL X 5"	1
16	P0310-571	DIN RAIL END ANCHOR	2
17	P0017-08-326	#8-32 ROUND SCREW X 1"	8
18	P0310-432	15 POSITION BARRIER STRIP	2
19	P0310-431A	SCREW TERMINAL	46
20	P0056-089	10 AMP DPDT RELAY, 120VAC COIL	3
21	P0310-599A	IEC CONTACTOR, 24 AMP MAX, 110VAC COIL	1
22	P0056-124	NORMALLY OPEN AUXILIARY CONTACT	1
23	P0310-399D	IEC OVERLOAD RELAY, 6-10 AMP	1
24	28470P00	JUNCTION BOX LAYOUT (FROM P0310-290)	1
25	28469P00	JUNCTION PANEL LAYOUT (FROM P0310-291)	1
26	P0056-129	RED PILOT LIGHT	2
27	P0056-120	120V INCANDESCENT POWER MODULE WITH LATCH	4
28	P0310-420	PUSH/PULL RED E-STOP BUTTON	1
29	P0310-474	ROUND E-STOP LEGEND	1
30	P0056-121	NORMALLY OPEN CONTACT BLOCK	2
31	P0056-122	NORMALLY CLOSED CONTACT BLOCK	2
32	P0310-411	GREEN MOMENTARY PUSH BUTTON, ILLUMINATED	1
33	P0310-417A	NON-ILLUMINATED PUSH BUTTON	1
34	P0056-123	RED PUSHBUTTON CAP	1
35	P0056-131	3 ACROSS MOUNTING LATCH	1
36	P0056-009	TOGGLE SWITCH	1
37	P0056-010	TOGGLE BOOT	1
38	P0313-021	14 SOCKET PLUG	2
39	23354P00	1-3/8" ALUMINUM HEX X 1"	2
40	P0313-008	#16 SOCKET	28
41	28268A00	JUNCTION BOX SHORTING PLUG	1
42	P0017-06-323	#6-32 ROUND SCREW X 1/2"	1
43	P0054-277	3 PIN MINI SHORTING PLUG	1
44	P0054-069	3 PIN MALE MINI RECEPTACLE	1
45	28215A00	ELECTRICAL SCHEMATIC & MAJOR PARTS	REF




ITEM	QTY.	PART NO.	DESCRIPTION
1	1	P0054-069	3 PIN MINI MALE RECEPTACLE
2	1	P0310-251	OUTLET BOX
3	2	P001-04-003	1/4"-20 UNC x 3/4" BOLT
4	1	P0310-252	4" ROUND COVER
4A	1	-----	GASKET
4B	2	-----	SCREW
5	1	P0053-018	HALOGEN FLOODLIGHT
5A	1	-----	MOUNTING NUT

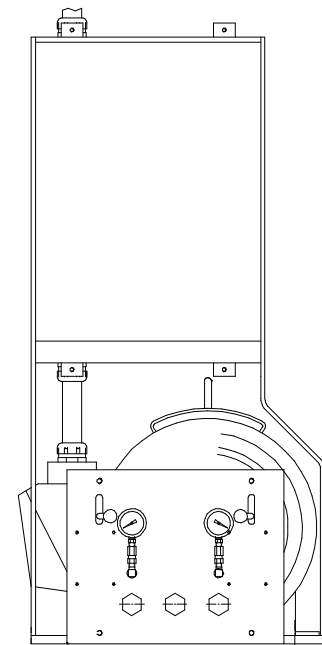
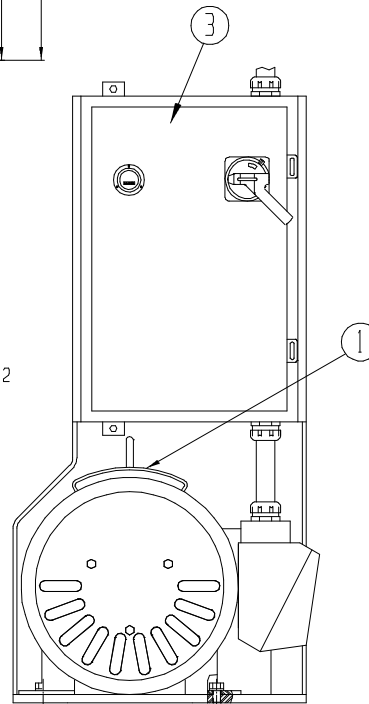
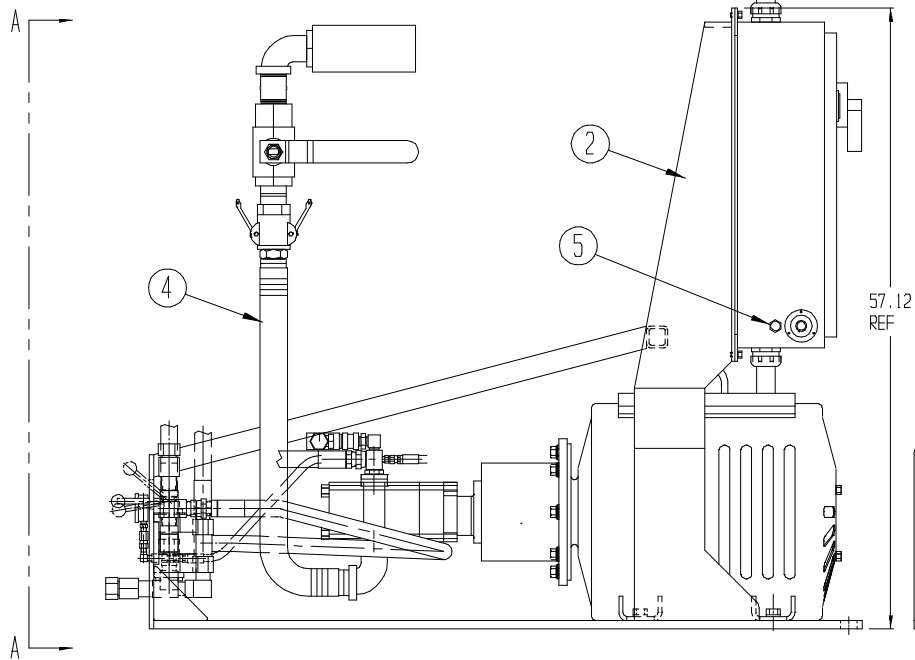
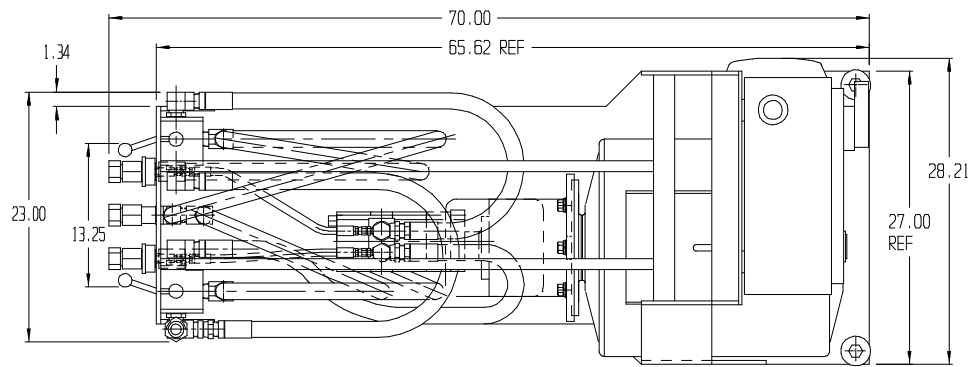
05					 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262	28103A00			
04						28102A00			
03						28101A00			
02						28100A00	1		
01									
REV	ECO	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN: KJE	DATE: 6-11-97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE: LIGHT ASSEMBLY					DECIMAL XX 1/16-02	CHECK	SCALE 1 TO 1	DWG. NO. 28190A00	
MATERIAL: SEE PARTS LIST					ANGLES 1/2-1"	DESIGN	SHEET 1 OF 1		





04						 AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261	28001F00			
03					28011F00		28000F00			
02					28021F00		THRU			
01					28031F00		28035F00			
REV	ECD	REVISION RECORD		BY	DATE		TOLERANCES UNLESS NOTED	DRAWN QV	DATE 6/97	NEXT ASSEMBLY
TITLE: FRAME ELECTRICAL ASSEMBLY, 415 VAC 50 HZ						DECIMAL .XX +/- .02	CHECK	SCALE 1 TO 1	DWG. 28221A00	
MATERIAL: NOTED						DECIMAL .XXX +/- .005	DESIGN F.JL	SHEET 1 OF 1	NO. 28221A00	
						ANGLES +/- 1°				
						FRACTIONS +/- 1/16				
						CHAMFER ALL SHARP EDGES 1/32 X 45°				
						ANGLES +/- 30°				

ITEM NO.	PART NO.	DESCRIPTION OF MATERIALS	QTY
01	28270A00	LOCAL CONTROL JUNCTION BOX	REF
02	P0054-087	3 PIN MINI-LINE CABLE X 6 FT	1
03	P0054-165	12 AWG 4 CONDUCTOR SO CABLE X 10 FT	2
04	P0054-278	3 PIN MINI-LINE CABLE X 12 FT	1
05	P0054-117A	4 POLE PLUG	1
06	P0054-287	4 PIN MINI-LINE CABLE X 6 FT	1
07	28357P00	1/2" X 10" HRS BAR X 16"	1
08	28358P00	3/16" HRS PLATE 7" X 11"	2
09	P0310-604	2 KVA TRANSFORMER 415 VAC X 110 VAC	1
10	28190A00	LAMP ASSEMBLY	REF



VIEW A-A

E					
D					
C					
B					
A	502	SEPARATE HYDRAULICS, No. 28200A	TAT	11-14-00	
REV	ECD	REVISION RECORD	BY	DATE	
TITLE: POWER MODULE ASSEMBLY - LOW PSI					
MATERIAL:					



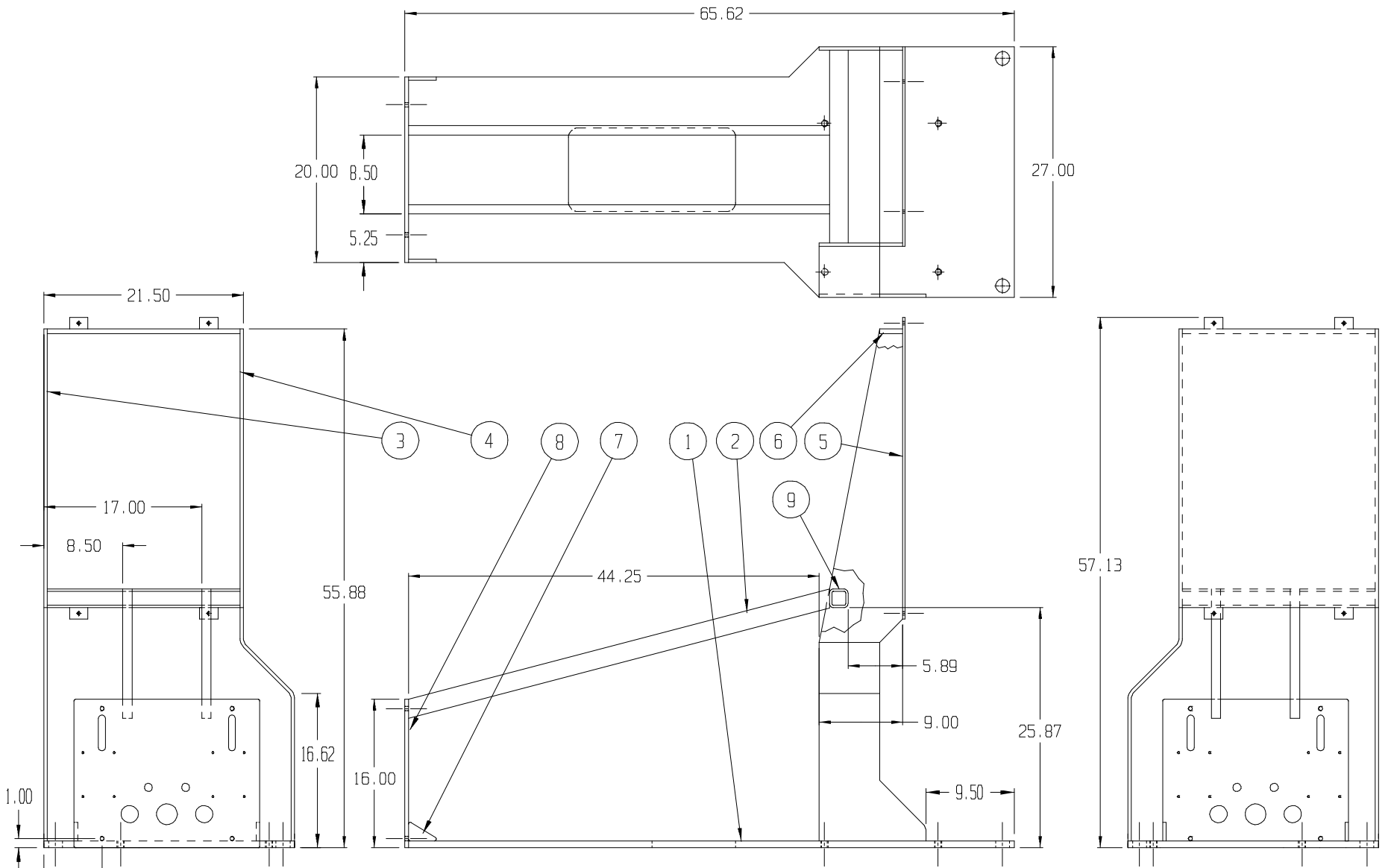
AKKERMAN INC.  
BROWNSDALE, MN 55918  
TEL. (507) 567-2261

TOLERANCES UNLESS NOTED  
DECIMAL .XX 1/16  
DECIMAL .XXX 1/32  
ANGLES 1/32 X 45°  
FRACTIONS 1/16

CHAMFER ALL SHARP EDGES 1/32 X 45°  
ANGLES 1/16 X 30°  
DRAWN: GNW  
CHECK:  
DATE: 5-97  
SCALE: 10:1  
DESIGN: F.J.L.  
SHEET 1 OF 1

28031F00	28031F00
NEXT ASS'Y	FINAL ASS'Y
DWG. NO. 28135A00	

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	28151A00	PUMP TO MOTOR - 100 H.P. DUAL GEAR PUMP LOW P.S.I.
2	1	28165A00	POWER MODULE WELDMENT - LOW P.S.I.
3	1	28252A00	POWER MODULE ASSEMBLY - LOW P.S.I. - ELECTRICAL
4	1	28200A00	POWER MODULE ASSEMBLY - LOW P.S.I. - HYDRAULICS
5	1	28240a00	POWER MODULE ELECT. CONN. TO FRAME 100 H.P. - LOW P.S.I.

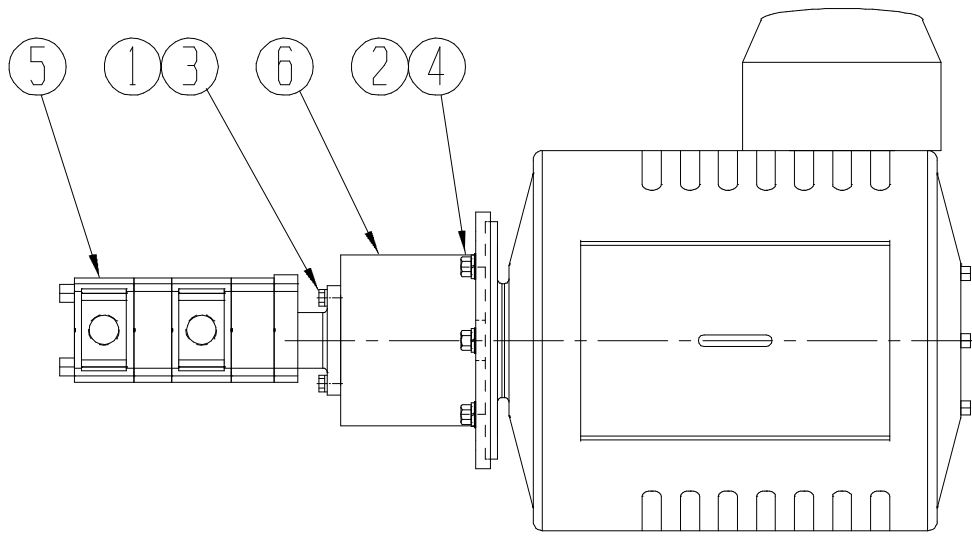


E									
D									
C									
B									
A	502	ADD REFERENCE DIMENSIONS	TAT	11-27-00				28135A00	28031F00
REV	ECD	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN	GNV	DATE	5-97
TITLE: POWER MODULE WELDMENT-100 Hp LOW PSI, DUAL PUMP					DECIMAL	XX	1/16	02	
MATERIAL:					DECIMAL	XXX	1/16	.005	
					ANGLES	1/16	1"		
					FRACTIONS	1/16			
					CHAMFER	ALL SHARP			
					EDGES	1/32	1/45		
					ANGLES	1/16	30		
							CHECK	SCALE	1 TO 1
							DESIGN	FJL	SHEET 1 OF 1
							DWG.	28165A00	
							NO.	28165A00	

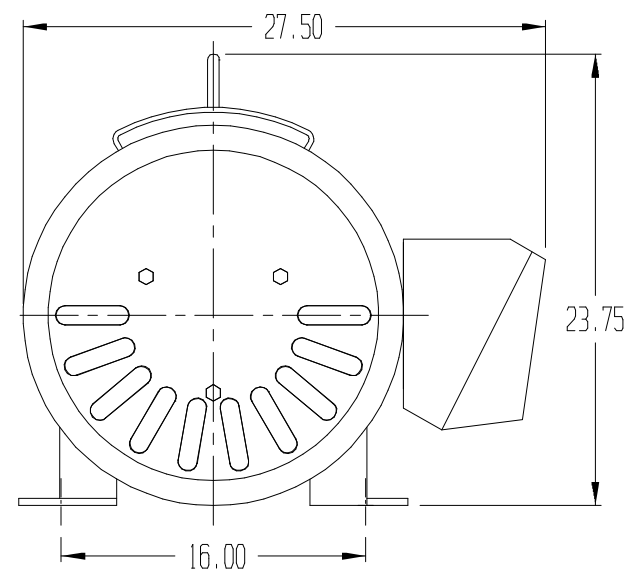
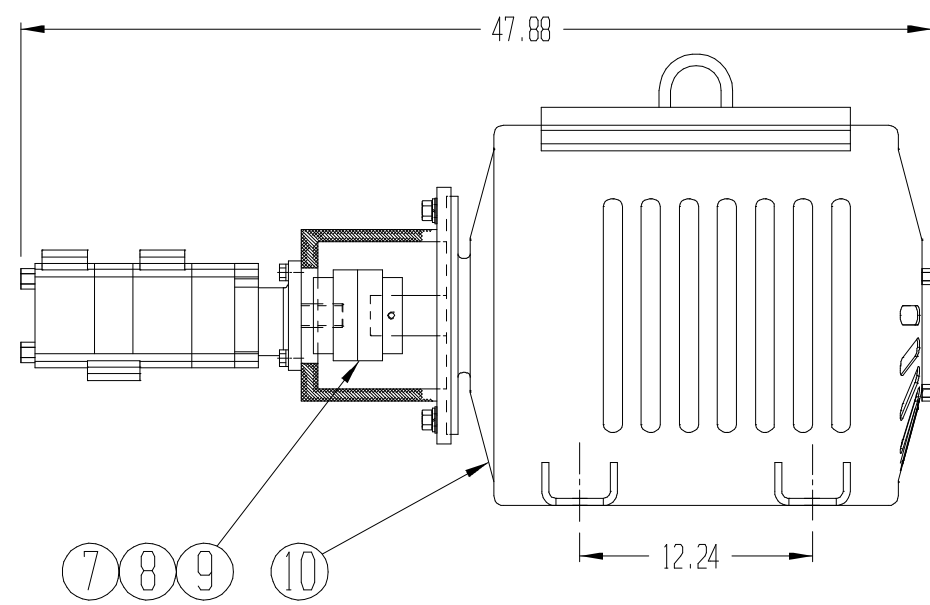


AKKERMAN INC.  
BROWNSDALE, MN 55918  
TEL. (507) 567-2261


ITEM NO.	PART NO.	DESCRIPTION OF MATERIALS	QTY
1	28300P00	3/4" HRS PLATE(28" X 66-5/8")	1
2	28301P00	1" X 2" X 12 GA A36 X 47-13/32"	2
3	28302P00	3/8" HRS PLATE(12-1/2" X 56-1/8")	1
4	28303P00	3/8" HRS PLATE(12-1/2" X 58-5/16")	1
5	28304P00	1/4" HRS PLATE(22-1/2" X 33-1/2")	1
6	28305P00	1/2" X 2-1/2" HRS BAR X 20-3/4"	1
7	28306P00	3/8" HRS PLATE(3" X 4")	2
8	28307P00	3/8" HRS PLATE(17" X 21")	1
9	28309P00	2" X 2" X 1/4" A36 X 20-3/4"	2



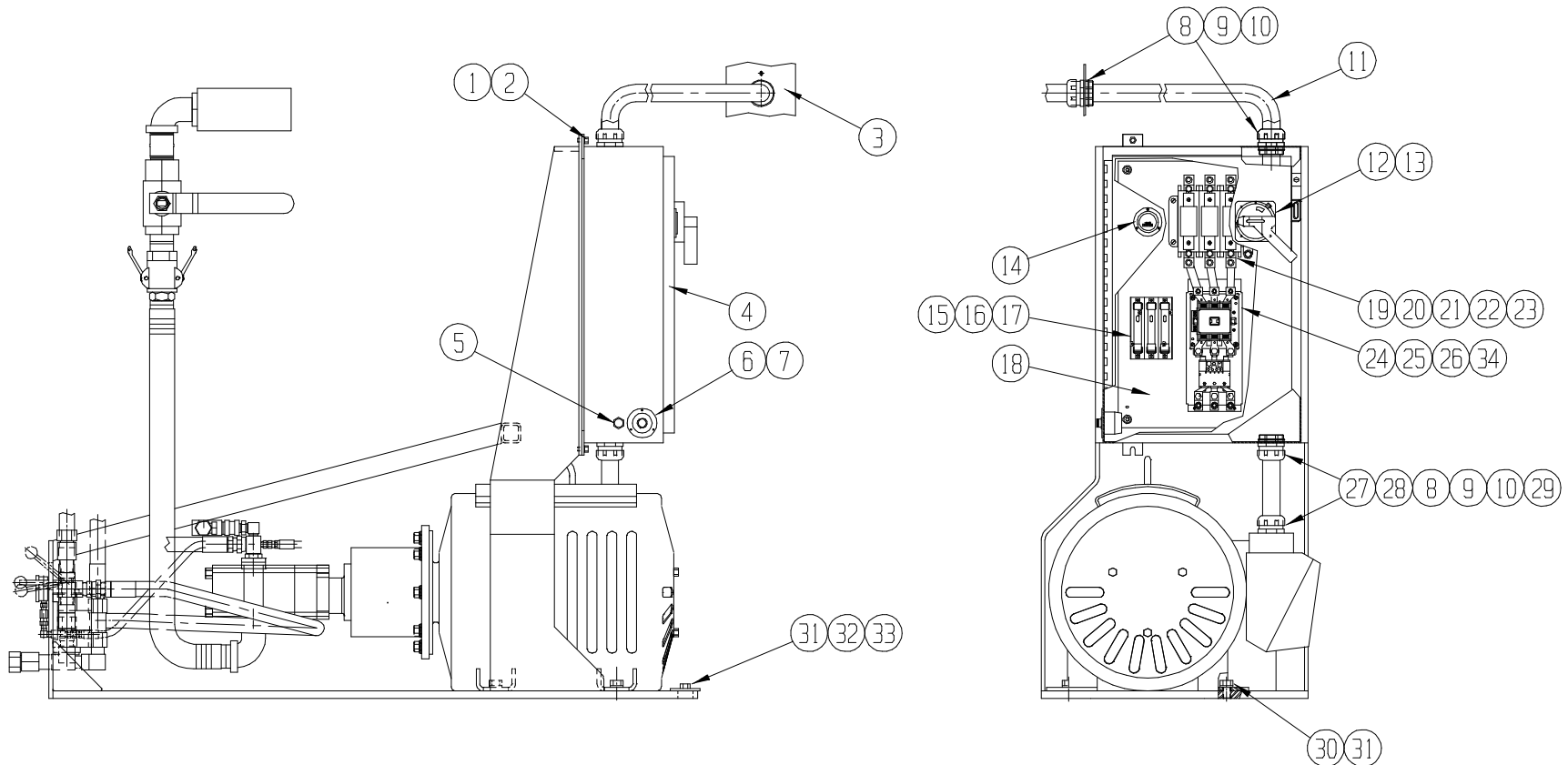
ITEM	QTY	PART NO.	DESCRIPTION
1	4	P0001-08-006	1/2" NC HEX BOLT X 1-1/2"
2	4	P0001-10-006	5/8" NC HEX BOLT X 1-1/2"
3	4	P0045-008	1/2" LOCKWASHER
4	4	P0045-010	5/8" LOCKWASHER
5	1	P0303-236	PUMP P350B178XXAB17-7##AB15-1
6	1	P0303-236A	PUMP ADAPTER M342762C
7	1	P0305-112A	MAGNALLOY COUP. M500-20416
8	1	P0305-112B	MAGNALLOY COUP. M500-A1308C
9	1	P0305-112D	MAGNALLOY COUP. M570-H5
10	1	P0310-163	100 HP ELECTRIC MOTOR



NOTE  
1. ROTATE WIRING BOX ON MOTOR.


05					 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262				
04									
03									
02									
01									
REV	ECD	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN GWV	DATE 5-97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE PUMP TO MOTOR-100hp, DUAL GEAR PUMP-LOW PSI					DECIMAL XX +/- .02	CHECK	SCALE 1 TO 1	DWG. NO. 28151A00	
MATERIAL NOTED					ANGLES +/- .1°	DESIGN FJL	SHEET 1 OF 1		
					FRACTIONS +/- 1/16				
					CHAMFER ALL SHARP				
					EDGES 1/32 X 45°				
					ANGLES +/- .30°				





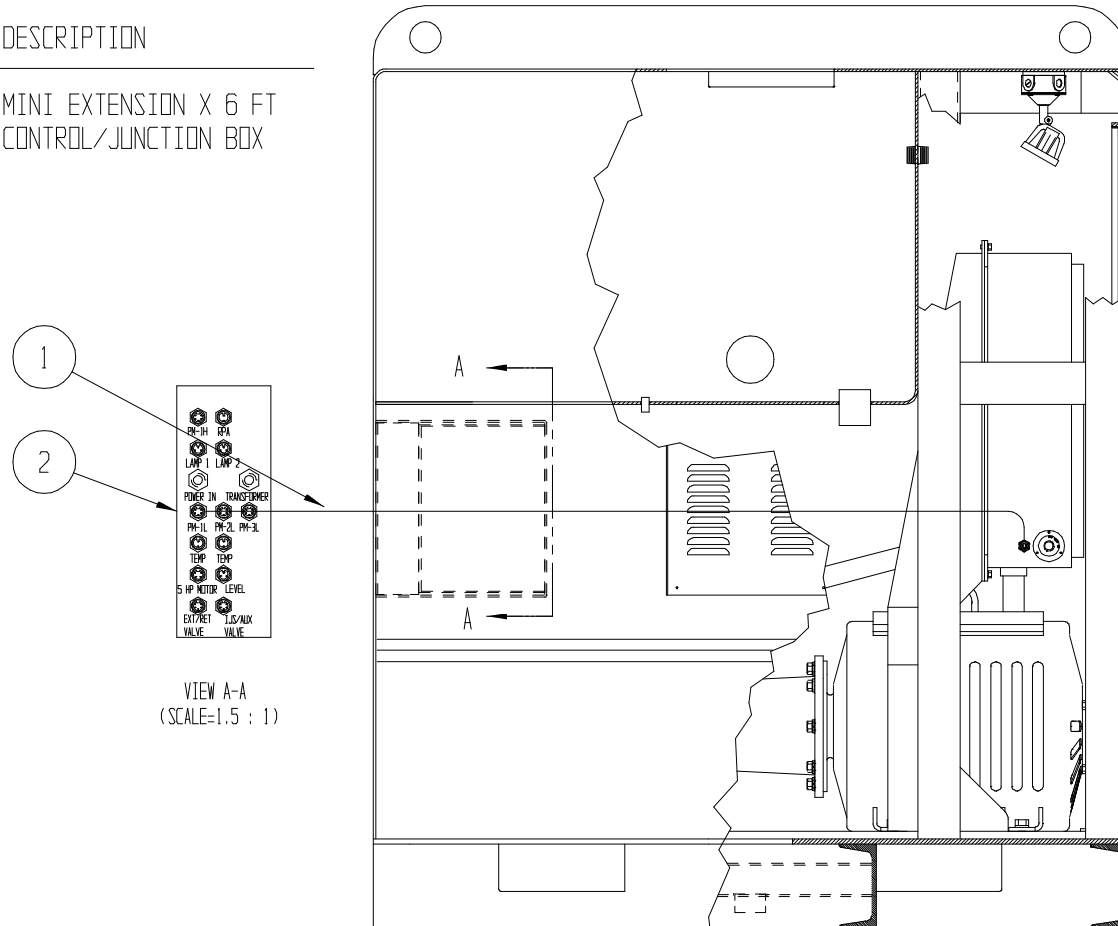
**NOTES:**

1. SEE 28215A00 FOR ELECTRICAL SCHEMATIC.


E													
D													
C													
B													
A	502	SEPARATE HYDRAULICS & ELECTRICS	TAT	11-28-00									
REV	ECD	REVISION RECORD	BY	DATE									
TITLE: POWER MODULE ASSEMBLY - ELECTRICAL					 AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261								
MATERIAL:					TOLERANCES UNLESS NOTED DECIMAL: XX 1/100 DECIMAL: XXX 1/1000 ANGLES: 1/2 1"		DRAWN: DV CHECK: F.J.L. DATE: 5-97 SCALE: 10:1 SHEET 1 OF 1		NEXT ASS'Y: 28139A00 FINAL ASS'Y: 28000F00		DWG. NO. 28252A00		

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	4	P0001-06-003	3/8" NC HEX BOLT X 3/4"
2	4	P0045-006	3/8" LOCK WASHER
3	REF	28388P00	1/4" A36 PLATE(8" X 17")
4	1	28452P00	ENCLOSURE
5	1	P0054-073A	5 PIN MINI-LINE MALE CONNECTOR
6	4	P0017-08-523	#8-32 MACHINE SCREW X 1/2"
7	1	P0054-117	4 POLE RECEPTACLE
8	3	P0311-053	2" INSULATING BUSHING
9	3	P0311-054	2" LOCK NUT
10	4	P0311-083	2" STRAIN RELIEF
11	1	P0054-017	1/0 GA 4 COND POWER CABLE X 100 FT
12	1	P0310-403A	DISCONNECT SWITCH HANDLE
13	1	P0310-403B	EXTENDED OPERATING SHAFT
14	1	P0310-260	HOUR METER
15	1	P0054-007	10 GA WIRE X 72"
16	1	P0310-110	FUSE HOLDER
17	3	P0310-347	FUSE FLSR-15
18	1	28455P00	PANEL LAYOUT
19	4	P0017-14-204	1/4"-20 MACHINE SCREW X 3/4"
20	3	P0310-772	FUSE AJT-150
21	1	P0310-628	DISCONNECT SWITCH
22	2	P0311-036	LUG
23	3	P0311-110	LUG
24	3	P0017-10-326	#10-32 MACHINE SCREW X 3/4"
25	1	P0054-262	1/0 ELECTRICAL CABLE X 108"
26	1	P0310-603	STARTER
27	1	P0054-017	1/0 GA 4 COND POWER CABLE x 3 FT
28	1	P0311-037	3" SCREW-TITE HUB
29	1	P0311-084	3" x 2" REDUCER BUSHING
30	4	P0001-12-004	3/4" NC HEX BOLT X 1-1/4"
31	6	P0045-012	3/4" LOCK WASHER
32	2	4124P00	3/8 HRS PLATE, (3 3/4 X 3 3/4) - CAM
33	2	P0001-12-008	3/4-10 X 2 HEX BOLT
34	3	28217P	CONNECTION BAR
35	0	28215A00	ELECTRICAL SCHEMATIC P400 & P600

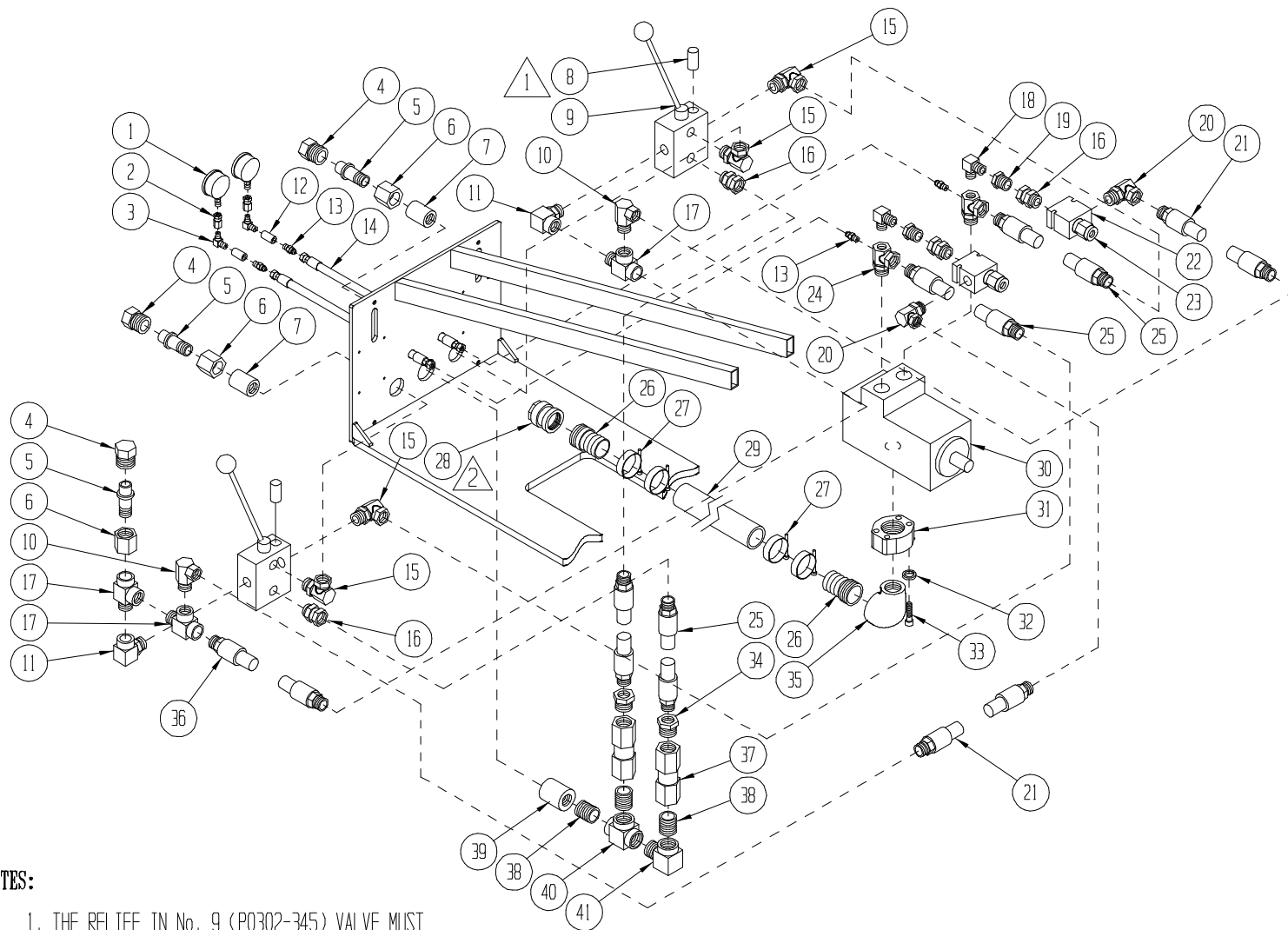
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	P0054-105A	5 PIN MINI EXTENSION X 6 FT
2	REF	28270A00	LOCAL CONTROL/JUNCTION BOX



VIEW A-A  
(SCALE=1.5 : 1)


04						 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262						
03									28000F00			
02									THRU			
01									28135A00	28035F00		
REV	ECC	REVISION RECORD			BY	DATE	TOLERANCES UNLESS NOTED	DRAWN DV	DATE 6/97	NEXT ASSEMBLY	FINAL ASSEMBLY	
TITLE: POWER MODULE ELECT. CONN. TO FRAME, 100 HP - LOW PSI							DECIMAL .XX +/- .02	CHECK	SCALE 1 TO 1	DWG. NO. 28240A00		
MATERIAL: NOTED							DECIMAL .XXX +/- .005	DESIGN FJL	SHEET 1 OF 1			
							ANGLES +/- 1°					
							FRACTIONS +/- 1/16					
							CHAMFER ALL SHARP EDGES 1/32 X 45°					
							ANGLES +/- 30°					



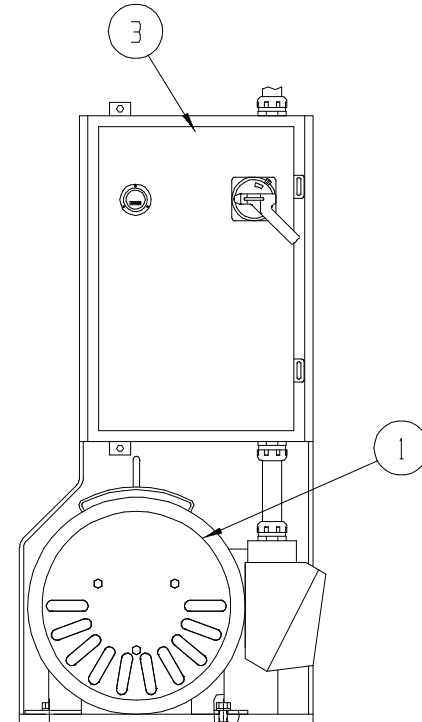
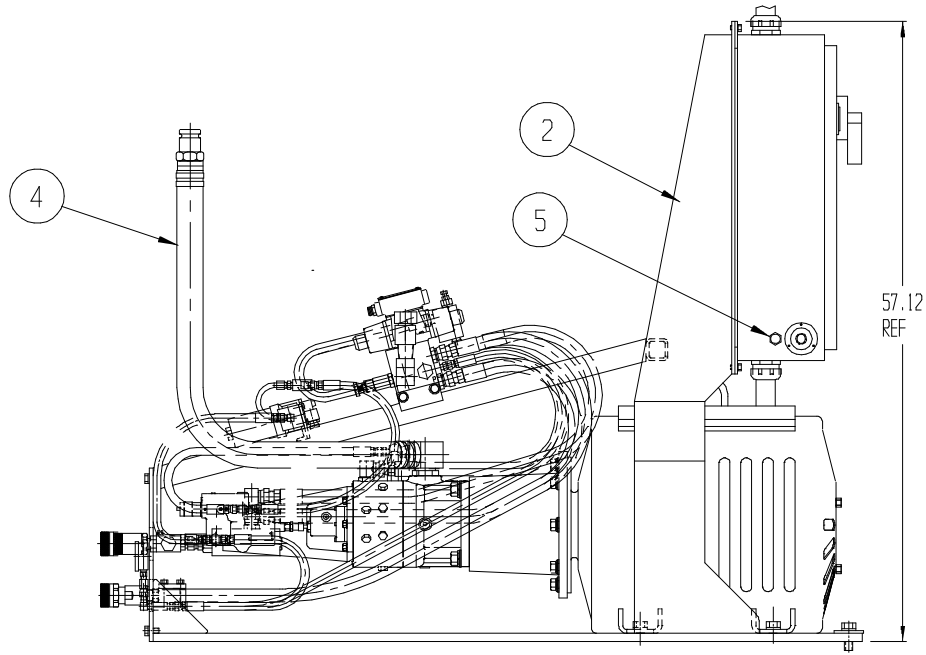
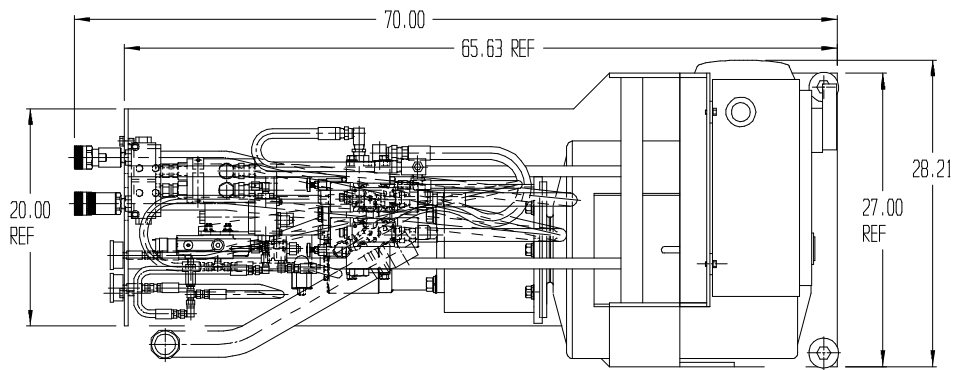


**NOTES:**

1. THE RELIEF IN No. 9 (P0302-345) VALVE MUST BE TAKEN OUT AND REPLACED WITH P0302-345B.
2. TO PUMP SUCTION ASSEMBLY, 28181A00, NOT SHOWN.

E										
D										
C										
B										
A	502	CHANGE TO HYDRAULIC ASSEMBLY	TAT	11-28-00						
REV	ECD	REVISION RECORD	BY	DATE						
TITLE: POWER MODULE ASSEMBLY - LOW PSI - HYDRAULICS					 AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261					
MATERIAL:					TOLERANCES UNLESS NOTED DECIMAL .XX 1/16 DECIMAL .XXX 1/32 ANGLES 1/2 - 1" CHAMFER ALL SHARP EDGES FRACTIONS 1/4 - 1/16 ANGLES 1/2 - 3/4"		DRAWN: GNV	DATE: 6-97	NEXT ASS'Y	FINAL ASS'Y
					CHECK:		SCALE: 9:1	DWG. NO. 28200A00		
					DESIGN:		SHEET 1 OF 1			

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	2	P0301-100	5000 PSI GAUGE
2	2	P0300-075	1/4" NPT FEM X 1/4" NPSM STRAIGHT
3	2	P0300-124	1/4" MALE 90°
4	3	5350P03	1-3/4" ALUM HEX X 2-1/4"
5	3	4899P00	1-3/4" DIA STR PRF ROD X 3-5/8"
6	3	4901P00	1-7/8" STR PRF HEX X 2"
7	2	P0400-005	1" PIPE COUPLING
8	2	P0302-345B	CAVITY PLUG
9	2	P0302-345	CONTROL VALVE DC16T4 LBD
10	2	P0300-105	1 X 3/4" FEMALE NPSM ELBOW SWIVEL ADAPTOR
11	2	P0300-033	FITTING
12	2	P0400-001	1/4" PIPE COUPLING
13	4	P0300-121	FITTING
14	2	A10311A0-026	3/8" HOSE ASS'Y X 26"
15	4	P0300-052	1-5/16"-12 ORB X 1" NPSM FEM SWIVEL 90°
16	4	P0300-162	FITTING
17	3	P0300-076	1" PIPE TEE
18	2	P0300-096	3/4" MALE ELBOW
19	2	P0300-133	1" MALE PIPE X 3/4" FEMALE PIPE HEX REDUCER BUSHING
20	2	P0300-233	1 5/16-12 X 3/4 FEMALE NPSM 90 SWIVEL ADAPTOR
21	2	P0512-052	3/4 LOW PRESSURE HOSE ASSEMBLY X 52"
22	2	P0302-180A	VALVE BLOCK
23	2	P0302-180B	VALVE CARTRIDGE
24	2	28399P	FITTING, MODIFIED
25	4	A10340A0-056	1" HOSE ASS'Y X 56"
26	2	P0423-001	2" NPT MALE
27	4	P0201-180	2-9/32 TO 2-19/32 T-BOLT CLAMP
28	2	P0100-022	2" FPT PLUG
29	1	P0201-159	2" HOSE X 36"
30	1	REF.	PUMP TO MOTOR
31	1	P0302-347	FLANGE
32	4	P0046-008	1/2" HI-COLLAR LOCK WASHER
33	4	P0031-08-008	1/2" NC SHCS X 2"
34	2	P0300-001	1 1/4" MALE PIPE X 1" FEMALE PIPE HEX REDUCER BUSHING
35	1	P0412-008A	2" STREET ELBOW 90°
36	1	A10340A0-044	1" HOSE ASS'Y X 44"
37	2	P0302-344	1-1/4" CHECK VALVE DC-1250-5
38	3	P0402-006	1 1/4" CLOSE NIPPLE
39	1	P0421-012	1 1/4 X 1 REDUCER COUPLER
40	1	P0300-182	1 1/4" FEMALE PIPE TEE
41	1	P0300-040	1 1/4" 90 STREET ELBOW
42	1	28181A00	HYDRAULIC CONNECTIONS TO RESERVOIR, LOW PSI
43	1	28210A00	HYDRAULIC SCHEMATIC



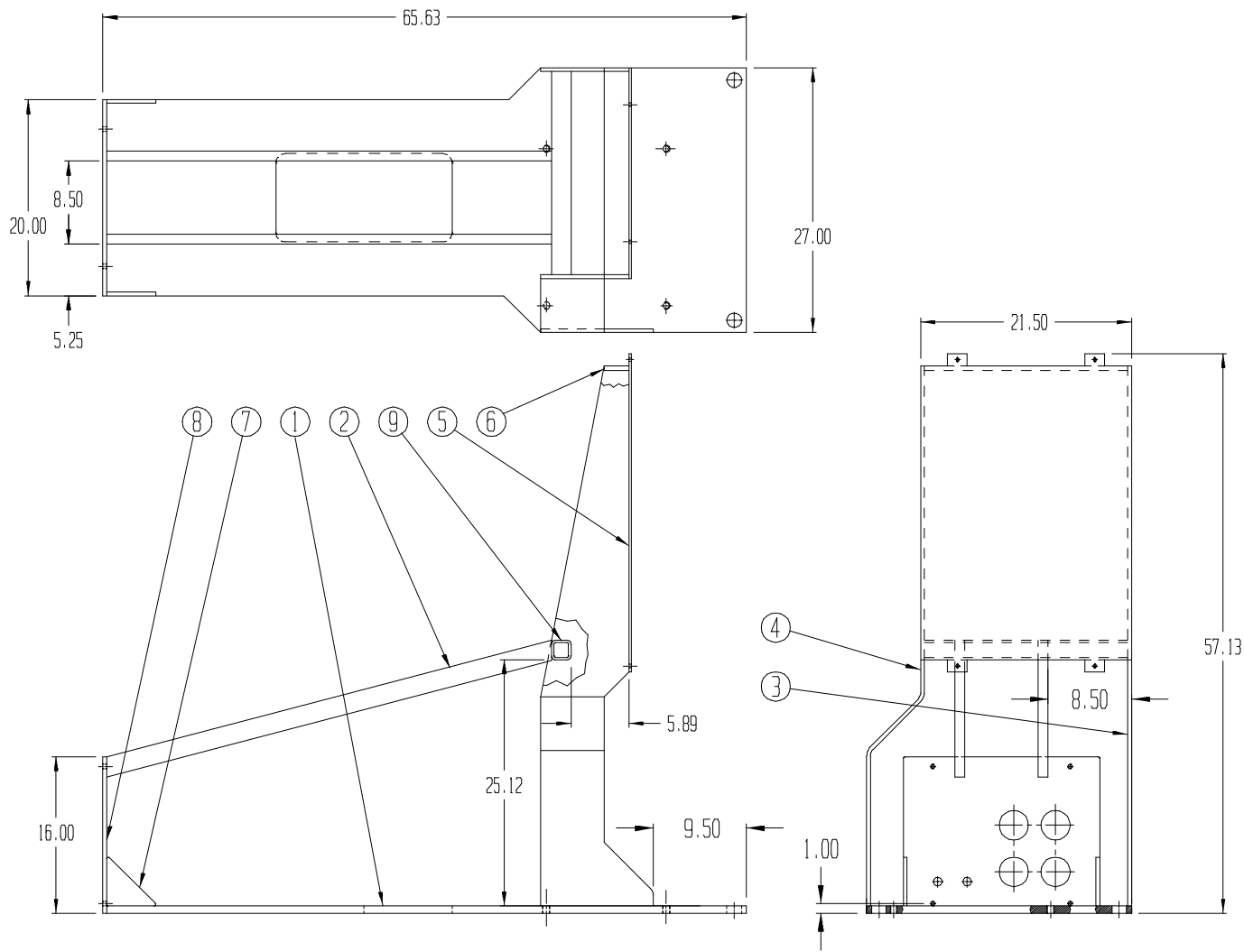
E					
D					
C					
B					
A	502	SEPARATE HYDRAULICS AND ELECTRICS	TAT	12-06-00	
REV	ECD	REVISION RECORD	BY	DATE	
TITLE: POWER MODULE ASSEMBLY - HIGH PSI - 100 HP					
MATERIAL:					



AKKERMAN INC.  
BROWNSDALE, MN 55918  
TEL. (507) 567-2261

TOLERANCES UNLESS NOTED	DRAWN: GNW	DATE: 5-97	NEXT ASS'Y	FINAL ASS'Y
DECIMAL .XX 1/4-.02			28031F00	28031F00
DECIMAL .XXX 1/4-.005				
ANGLES 1/4-1°	CHECK:	SCALE: 10:1	DWG. NO. 28139A00	
FRACTIONS 1/4-1/16	DESIGN:	SHEET 1 OF 1		
	CHAMFER ALL SHARP EDGES 1/32 X 45°			
	ANGLES 1/4-30°			

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	28155A00	PUMP TO MOTOR 100HP, 4020 PISTON PUMP, HIGH PSI
2	1	28168A00	POWER MODULE WELDMENT
3	1	28252A00	POWER MODULE ASSEMBLY - ELECTRICAL
4	1	28203A00	POWER MODULE ASSEMBLY - HIGH P.S.I. - HYDRAULICS
5	1	28242A00	POWER MODULE ELECT. CONN. TO FRAME - 100 H.P. - HIGH P.S.I.

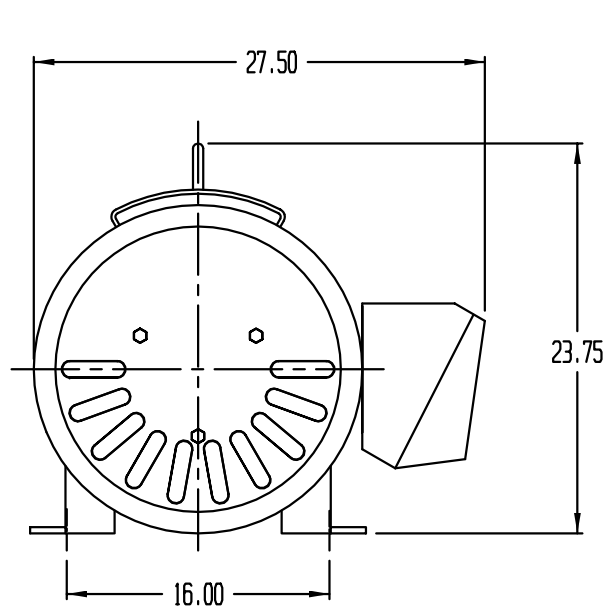


E									
D									
C									
B									
A	502	CHANGE #2 & 9 ON B.D.M.	TAT	11-21-00					
REV	ECD	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN: GNW	DATE: 5-97	NEXT ASS'Y	FINAL ASS'Y
TITLE: POWER MODULE WELDMENT - 100 H.P. HIGH P.S.I.					DECIMAL: XX 1/4-02	CHECK: F.J.L.	SCALE: 10:1	DWG. NO. 28168A00	SHEET 1 OF 1
MATERIAL:					DECIMAL: XXX 1/4-005				
					ANGLES: 1/4-1"	CHAMFER ALL SHARP EDGES 1/32 X 45°			
					FRACTIONS: 1/4-1/16	ANGLES: 1/4-30°			

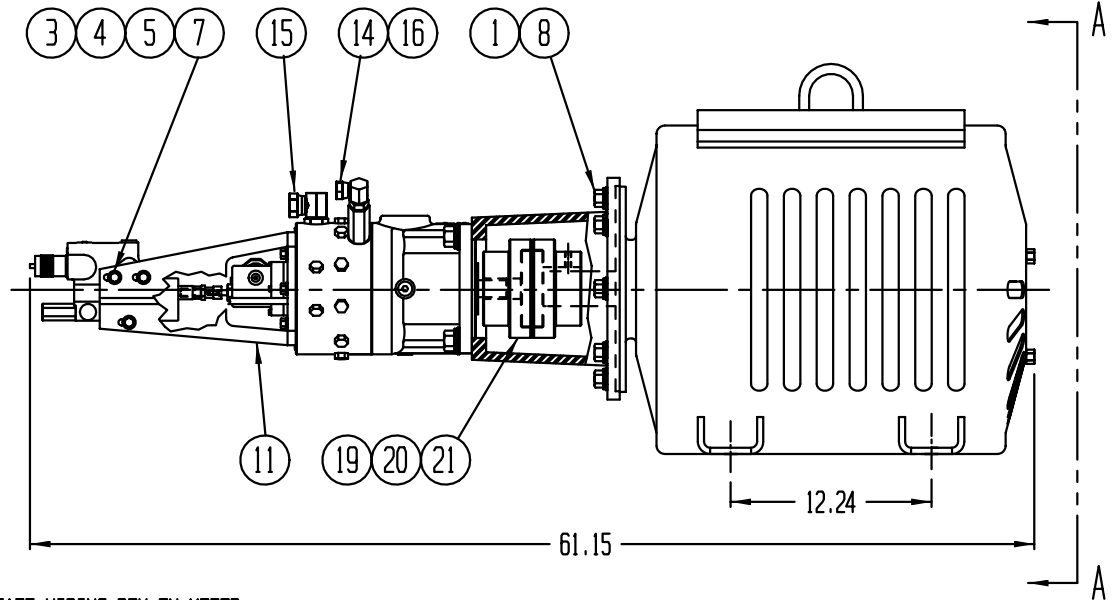
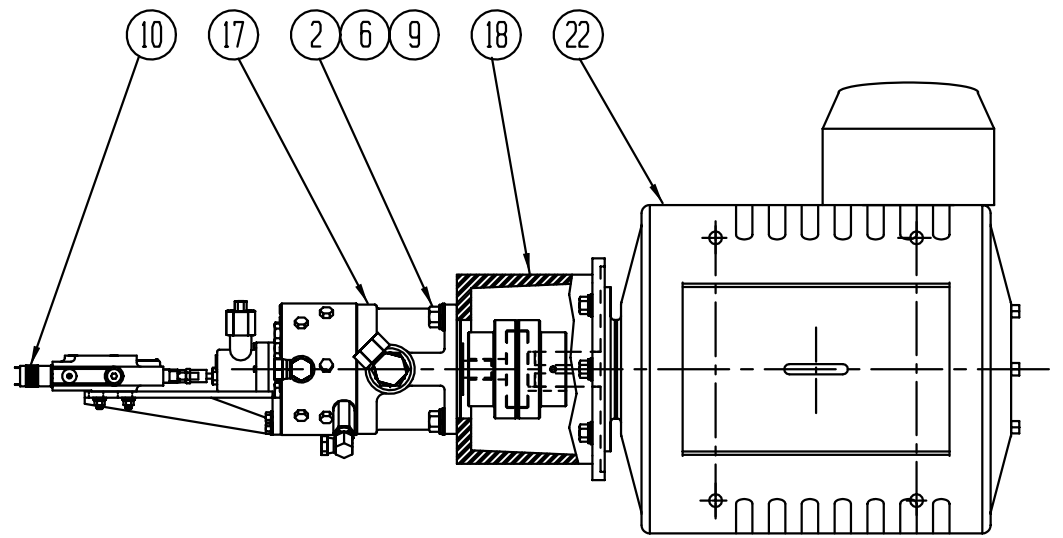


AKKERMAN INC.  
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ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	28300P00	3/4" HRS PLATE(28" X 66-5/8")
2	2	28301P00	1" X 2" X 12GA A36 TUBING X 47-13/32"
3	1	28302P00	3/8" HRS PLATE(12-1/2" X 56-1/8")
4	1	28303P00	3/8" HRS PLATE(12-1/2" X 58-5/16")
5	1	28304P00	1/4" HRS PLATE(22-1/2" X 33-1/2")
6	1	28305P00	1/2" X 2-1/2" HRS BAR X 20-3/4"
7	2	28306P00	3/8" HRS PLATE(6" X 6")
8	1	28308P00	3/8" HRS PLATE(17" X 21")
9	2	28309P00	2" X 2" X 1/4" A36 SQ. TUBING X 20-3/4"



VIEW A-A



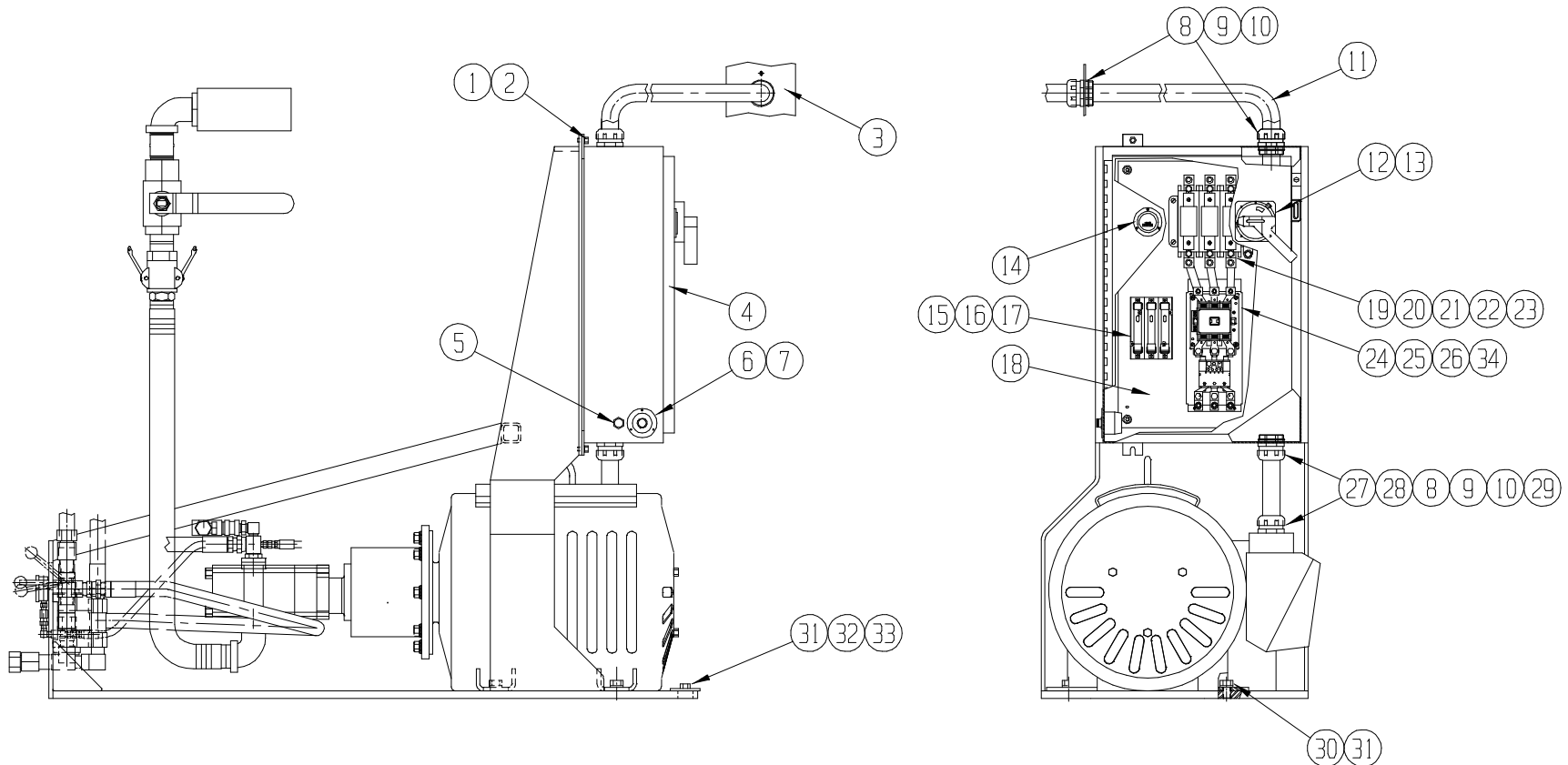
NOTE  
1. ROTATE WIRING BOX ON MOTOR.

E												
D												
C												
B												
A	821	COMBINE PART No. 11-13 TO P0299-005A	TAT	8-18-03					28139A00	28001F00		
REV	ECO	REVISION RECORD	BY	DATE								
TITLE PUMP TO MOTOR-100hp, 4020 PISTON PUMP-HIGH PSI					TOLERANCES UNLESS NOTED		DRAWN	GNV	DATE	5-97	NEXT ASSEMBLY	FINAL ASSEMBLY
MATERIAL NOTED					DECIMAL	XX 1/4-.02	CHECK		SCALE	1 TO 1	DWG.	28155A00
					FRACIONS	1/16	DESIGN		F.J.L.	SHEET	1 OF 1	




AKKERMAN INC.  
BROWNSDALE, MN 55918  
TEL. (507) 567-2261

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	4	P0001-10-006	5/8-11 X 1 1/2 HEX BOLT
2	4	P0001-12-007	3/4-10 X 1 3/4 HEX BOLT
3	3	P0003-005	5/16-18 HEX NUT
4	3	P0031-05-006	5/16-18 X 1 1/2 SHCS
5	3	P0040-005	5/16 FLAT WASHER
6	4	P0040-012	3/4 FLAT WASHER
7	3	P0045-005	5/16 LOCK WASHER
8	4	P0045-010	5/8 LOCK WASHER
9	4	P0045-012	3/4 LOCK WASHER
10	1	P0299-002	DYNEX/RIVET REMOTE PROPORTIONAL ACTUATOR
11	1	P0299-005A	KIT BRACKET-FOR 299-3, 299-4 & 299-5
12			
13			
14	1	P0300-069	7/8-14 ORB X 1/2 NPSM FEMALE SWIVEL ADAPTOR
15	1	P0300-136	1 1/16-12 ORB X 3/4 NPSM FEM SWIV 90
16	1	P0302-316	METRO CHECK VALVE
17	1	P0303-227	PV 4020-3046 PUMP
18	1	P0305-140	MAGNALLOY HORIZONTAL PUMP HOUSING
19	1	P0305-141A	FLEX DRIVE COUPLER HALF 100 HP MOTOR
20	1	P0305-141B	FLEX DRIVE COUPLER HALF TO PV 4020-3046
21	1	P0305-141C	FLEX DRIVE COUPLER URETHANE INSERT
22	1	P0310-163	100 HP ELECTRIC MOTOR



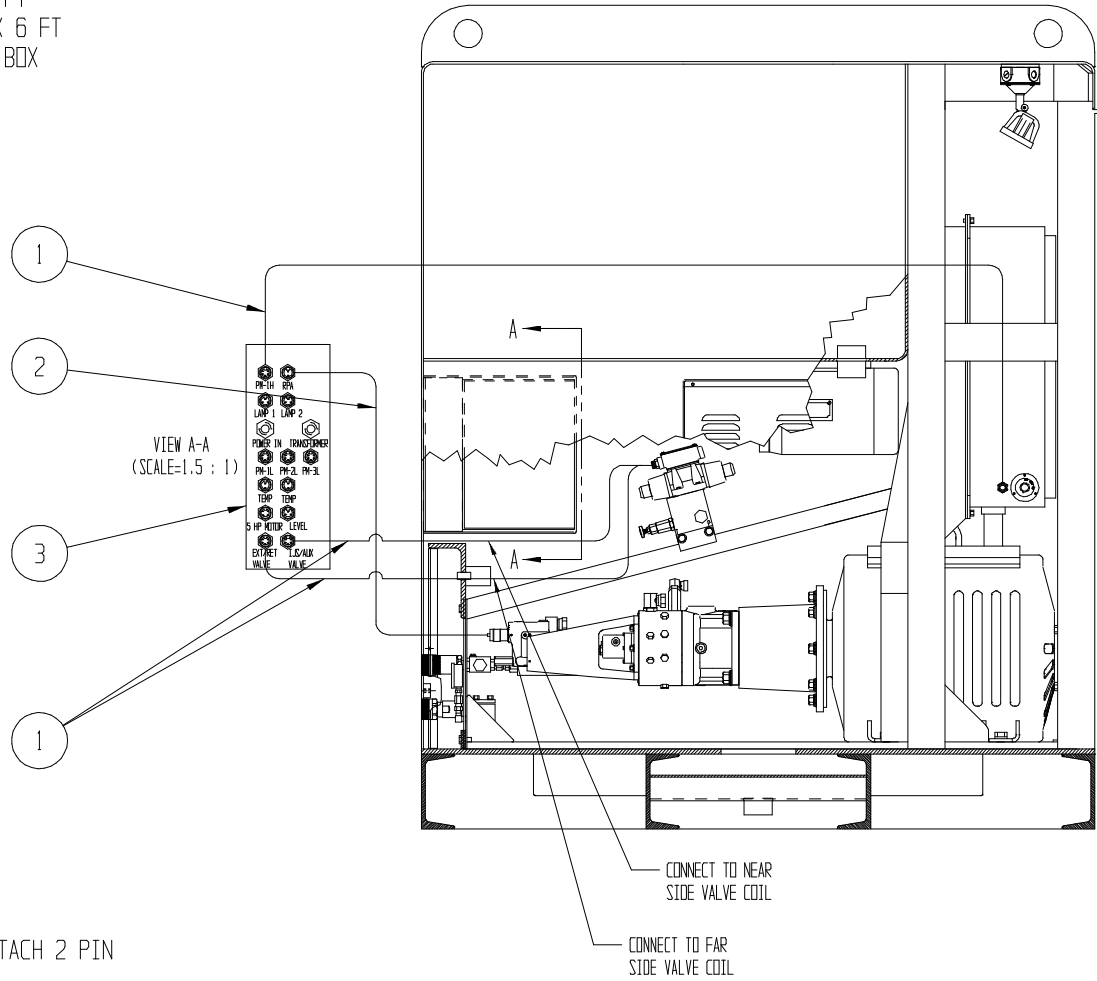
**NOTES:**

1. SEE 28215A00 FOR ELECTRICAL SCHEMATIC.


E													
D													
C													
B													
A	502	SEPARATE HYDRAULICS & ELECTRICS	TAT	11-28-00									
REV	ECD	REVISION RECORD	BY	DATE									
TITLE: POWER MODULE ASSEMBLY - ELECTRICAL					 AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261								
MATERIAL:					TOLERANCES UNLESS NOTED DECIMAL: XX 1/100 DECIMAL: XXX 1/1000 ANGLES: 1/2 1" 45° FRACTIONS: 1/16		DRAWN: DV DATE: 5-97 CHECK: SCALE: 10:1 DESIGN: F.J.L.		NEXT ASS'Y FINAL ASS'Y		DWG. NO. 28252A00		

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	4	P0001-06-003	3/8" NC HEX BOLT X 3/4"
2	4	P0045-006	3/8" LOCK WASHER
3	REF	28388P00	1/4" A36 PLATE(8" X 17")
4	1	28452P00	ENCLOSURE
5	1	P0054-073A	5 PIN MINI-LINE MALE CONNECTOR
6	4	P0017-08-523	#8-32 MACHINE SCREW X 1/2"
7	1	P0054-117	4 POLE RECEPTACLE
8	3	P0311-053	2" INSULATING BUSHING
9	3	P0311-054	2" LOCK NUT
10	4	P0311-083	2" STRAIN RELIEF
11	1	P0054-017	1/0 GA 4 COND POWER CABLE X 100 FT
12	1	P0310-403A	DISCONNECT SWITCH HANDLE
13	1	P0310-403B	EXTENDED OPERATING SHAFT
14	1	P0310-260	HOUR METER
15	1	P0054-007	10 GA WIRE X 72"
16	1	P0310-110	FUSE HOLDER
17	3	P0310-347	FUSE FLSR-15
18	1	28455P00	PANEL LAYOUT
19	4	P0017-14-204	1/4"-20 MACHINE SCREW X 3/4"
20	3	P0310-772	FUSE AJT-150
21	1	P0310-628	DISCONNECT SWITCH
22	2	P0311-036	LUG
23	3	P0311-110	LUG
24	3	P0017-10-326	#10-32 MACHINE SCREW X 3/4"
25	1	P0054-262	1/0 ELECTRICAL CABLE X 108"
26	1	P0310-603	STARTER
27	1	P0054-017	1/0 GA 4 COND POWER CABLE x 3 FT
28	1	P0311-037	3" SCREW-TITE HUB
29	1	P0311-084	3" x 2" REDUCER BUSHING
30	4	P0001-12-004	3/4" NC HEX BOLT X 1-1/4"
31	6	P0045-012	3/4" LOCK WASHER
32	2	4124P00	3/8 HRS PLATE, (3 3/4 X 3 3/4) - CAM
33	2	P0001-12-008	3/4-10 X 2 HEX BOLT
34	3	28217P	CONNECTION BAR
35	0	28215A00	ELECTRICAL SCHEMATIC P400 & P600

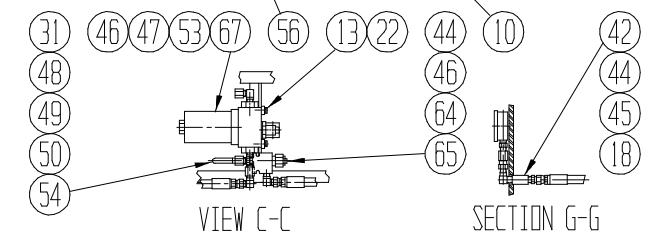
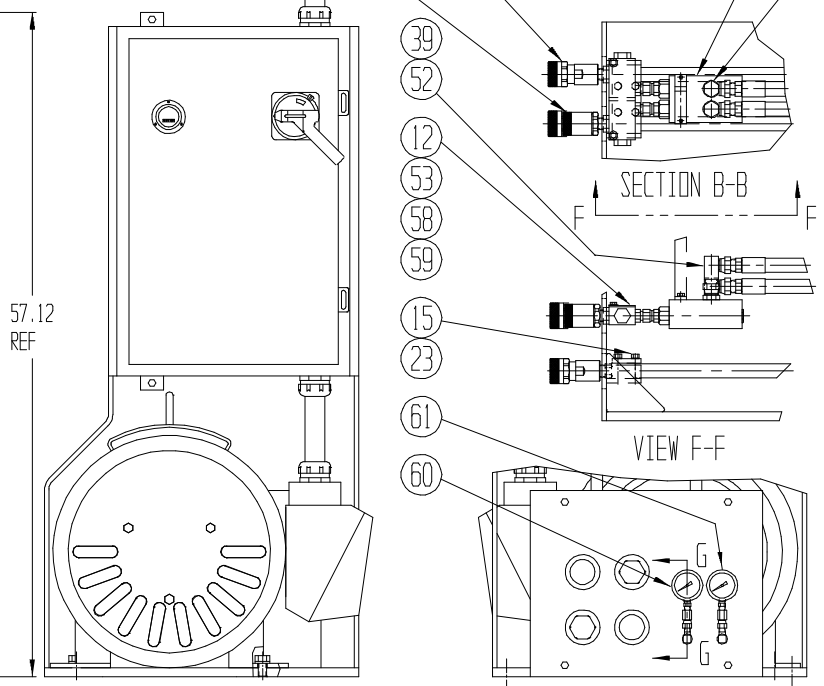
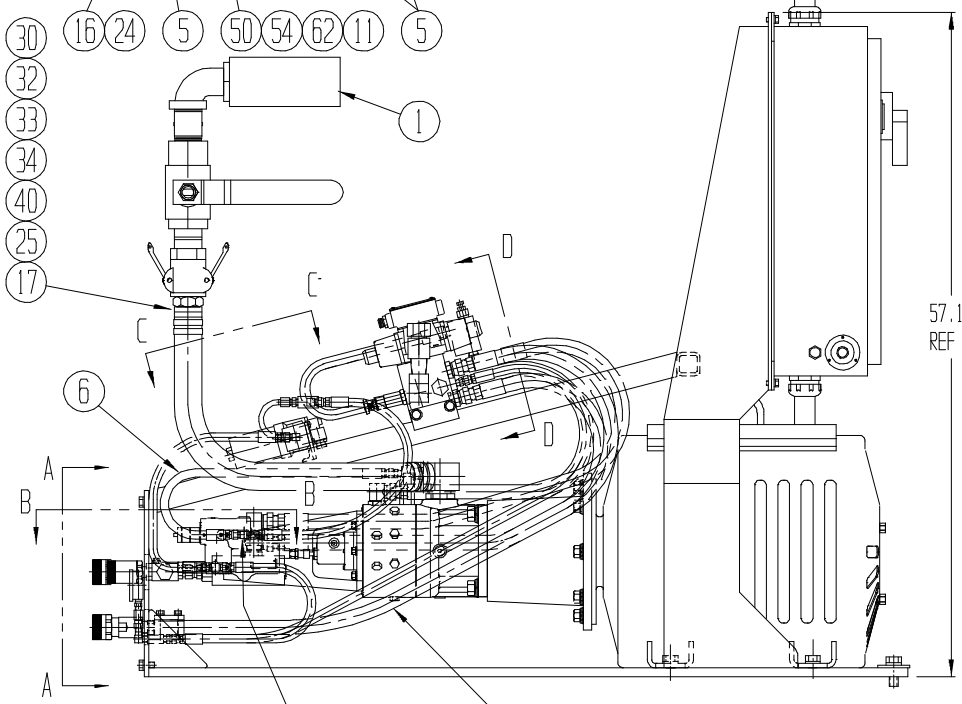
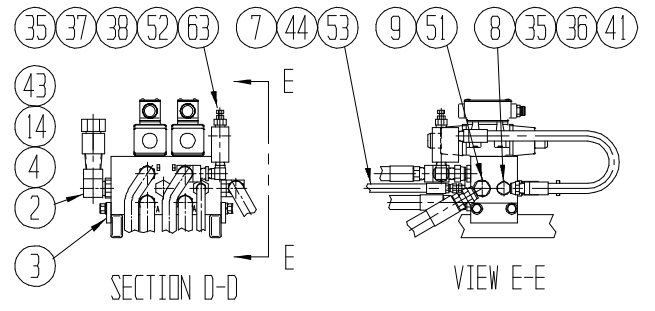
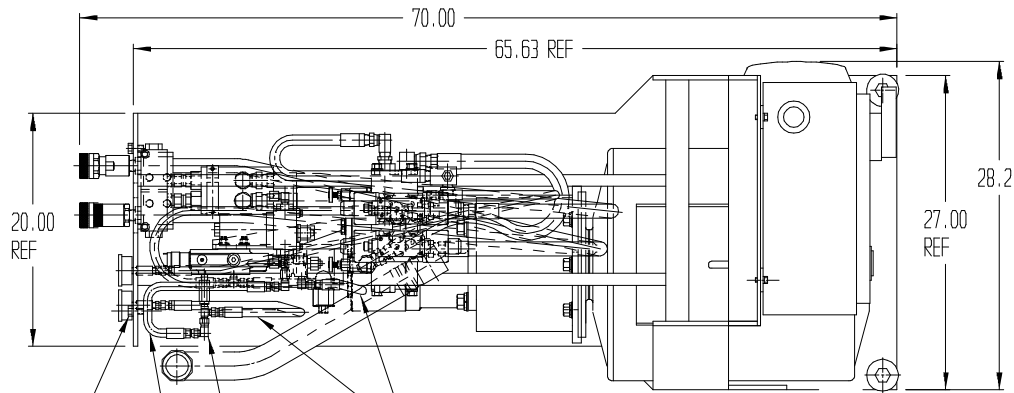
ITEM	QTY	PART NO.	DESCRIPTION
1	3	P0054-105A	5 PIN MINI EXTENSION X 6 FT
2	1	P0313-042	2 PIN MINI MALE PIGTAIL X 6 FT
3	REF	28270A00	LOCAL CONTROL / JUNCTION BOX



NOTE:  
 1. USE CRIMP ON SPADES AND HEAT SHRINK TO ATTACH 2 PIN PIGTAIL TO REMOTE PROPORTIONAL ACTUATOR.

04						 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262			28000F00			
03								28138A00	THRU			
02								28139A00	28035F00			
01												
REV	ECD	REVISION RECORD			BY	DATE	TOLERANCES UNLESS NOTED	DRAWN DV	DATE 6/97	NEXT ASSEMBLY	FINAL ASSEMBLY	
TITLE: POWER MODULE ELECT. CONN. TO FRAME, 100 HP - HIGH PSI							DECIMAL XX +/- .02	CHECK	SCALE 1 TO 1	DWG. 28242A00		
MATERIAL: NOTED							DECIMAL XXX +/- .005	DESIGN F.JL	SHEET 1 OF 1	NO. 28242A00		
							ANGLES +/- 1°					
							FRACTIONS +/- 1/16					
							CHAMFER ALL SHARP EDGES 1/32 X 45°					
							ANGLES +/- 30°					





NOTE: 1. ITEM No. 68 28186A00 NOT SHOWN.

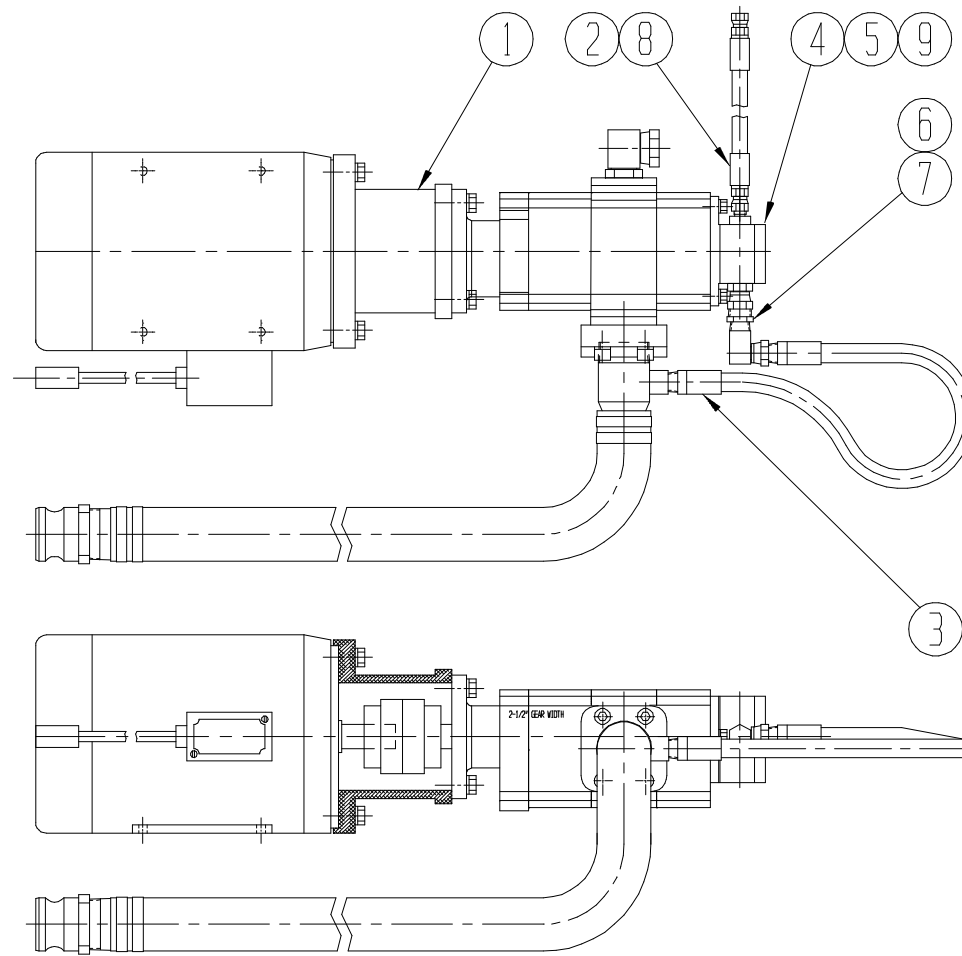
NUMBERS NEED TO BE PUT IN ORDER

05							AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261		
04									
03									
02	502	SEPARATE ELECTRICS AND HYDRALLICS	TAT	12-06-00					
01	-	ADDED P0054-017	DJP	7-98				28139A00	-
REV	ECO	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN GNV	DATE 5-97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE POWER MODULE ASSEMBLY - HYDRALLIC - HIGH P.S.I. - 100 H.P.					DECIMAL XX 1/16	CHECK	SCALE 1 TO 1	DWG. NO.	28203A00
MATERIAL NOTED					ANGLES 1/32 X 45°	DESIGN F.J.L	SHEET 1 OF 1		
					FRACTIONS 1/16				
					ANGLES 1/32				


ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
1	1	28181A00	PUMP SUCTION ASSEMBLY - MODEL P400-P600
2	1	5350P03	CAP
3	1	28188A00	2 SECTION FUNCTION SELECTOR, HIGH PSI
4	1	4901P00	1-7/8" STR PRF HEX X 2"
5	3	A10311A0-024	3/8" HOSE ASS'Y X 24"
6	1	A10311A0-032	3/8" HOSE ASS'Y X 32"
7	1	A10311A0-060	3/8" HOSE ASS'Y X 60"
8	1	A10320A0-024	1/2" HOSE ASS'Y X 24"
9	3	A10340A0-046	1" HOSE ASS'Y X 46"
10	2	A10340A0-078	1" HOSE ASS'Y X 78"
11	1	P0402-002	3/8" CLOSE NIPPLE
12	2	A10132P0	1-1/2" X 2-1/2" CRS BAR X 3-3/8"
13	4	P0001-04-002	1/4" NC HEX BOLT X 1/2"
14	1	4899P00	1-3/4" STR PRF ROD X 3-5/8"
15	4	P0001-06-008	3/8" NC HEX BOLT X 2"
16	4	P0001-08-004	1/2" NC HEX BOLT X 1"
17	1	P0423B-020	2" HOSE SHANK X BEVELED END
18	2	P0400-001	1/4" PIPE COUPLING
19	2	P0003-002	#10 NC HEX NUT
20	2	P0031-02-012	#10 NC HEX BOLT X 3"
21	2	P0040-002	#10 FLAT WASHER
22	4	P0045-004	1/4" LOCK WASHER
23	4	P0045-006	3/8" LOCK WASHER
24	4	P0045-008	1/2" LOCK WASHER
25	1	P0423-001	2" NPT MALE
26	2	P0100-012A	3/4" NPT MALE THREAD-COUPLER
27	2	P0100-012B	3/4" NPT FEMALE THREAD-COUPLER
28	2	P0100-012E	CAP
29	2	P0100-012D	CAP
30	1	P0100-022	2" PLUG
31	1	P0110-103	3/8"(.065 WALL)TUBING X 4-3/4"
32	1	P0201-159	2" HOSE X 36"
33	2	P0201-180	2" T-BOLT CLAMP
34	2	P0201-181	2-1/2" T-BOLT CLAMP
35	2	P0300-012	FITTING
36	1	P0300-018	1/2" MALE X 1/2" FEMALE 90 SWIVEL
37	1	P0300-019	FITTING
38	1	P0300-025	FITTING
39	1	P0300-034	FITTING
40	1	P0300-038	1-7/8" ORB X 1-1/2" NPTF FEMALE 90
41	1	P0300-068	FITTING
42	2	P0300-075	1/4" NPT FEM X 1/4" NPSM STRAIGHT
43	1	P0300-033	FITTING
44	4	P0300-121	FITTING
45	2	P0300-124	1/4" MALE 90°

ITEM NO.	QTY	PART NO.	DESCRIPTION OF MATERIALS
46	2	P0300-125	3/8" TUBE X 1/4" NPTF 90
47	1	P0300-126	3/8" TUBE CAP
48	2	P0300-127	3/8" TUBE SLEEVE
49	2	P0300-128	3/8" TUBE NUT
50	2	P0300-132	3/8" TUBE X 1/4" NPTF MALE TEE
51	2	P0300-136	FITTING
52	2	P0300-137	1-1/16"-12 ORB X 3/4" NPSM SWIVEL
53	7	P0300-145	1-1/16"-12 ORB PLUG
54	2	P0300-149	3/8" TUBE 90 SWIVEL
55	2	P0300-185	FITTING
56	1	P0300-186	FITTING
57	2	P0300-199	7/8" ORB X 5/8" JIC ADAPTER
58	2	P0300-236	7/8" ORB X 7/8" JIC STR SWIVEL ADAPTER
59	2	P0300-238	1-1/16"-12 ORB X 3/4" NPT ADAPTER
60	1	P0301-101	10000 PSI GAUGE
61	1	P0301-110	600 PSI GAUGE
62	1	P0302-101	CHECK VALVE
63	1	P0302-269	6000 PSI RELIEF VALVE
64	1	P0302-288	350 PSI CARTRIDGE RELIEF VALVE
65	1	P0302-288A	BODY
66	1	P0302-315	DOUBLE PILOT OPERATED CHECK VALVE
67	1	P0309-165	FILTER
68	1	28186A00	RPA CHARGE PUMP AND CONNECTIONS, 5 HP

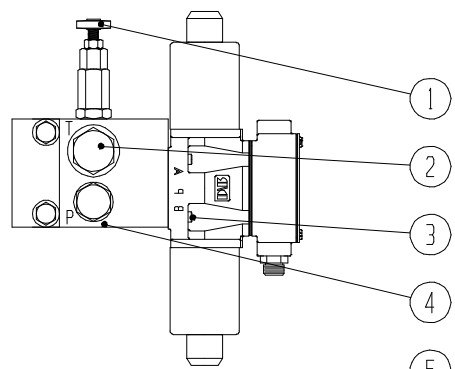
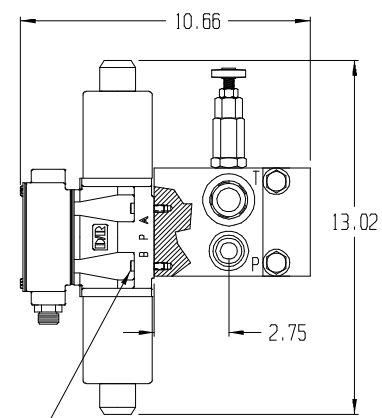
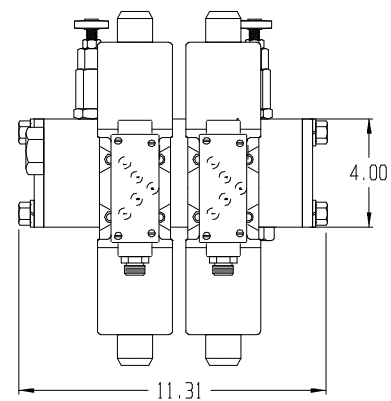
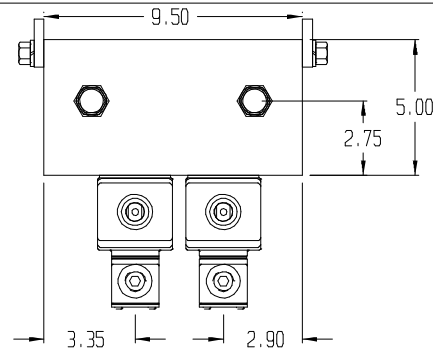
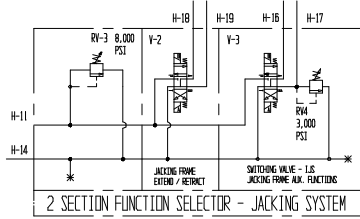




NOTE:  
 1. REMOVE PLUG FOR CONNECTION HOSE ITEM #3  
 2. REMOVE COVER PLATE FOR INSTALLATION PUMP ITEM #9

05						 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262						
04												
03												
02								28203A00 -				
01								28200A00 -				
REV	ECD	REVISION RECORD			BY	DATE	TOLERANCES UNLESS NOTED	DRAWN GNV	DATE 5-97	NEXT ASSEMBLY	FINAL ASSEMBLY	
TITLE R PA CHARGE PUMP AND CONNECTIONS, 5 HP - MODEL P600							DECIMAL XX 1/4" - .02	CHECK	SCALE 1 TO 1	DWG. 28186A00		
MATERIAL NOTED							DECIMAL XXX 1/4" - .005	DESIGN FJL	SHEET 1 OF 1	NO. 28186A00		
							ANGLES 1/2" - 1"					
							FRACTIONS 1/16					
							CHAMFER ALL SHARP EDGES 1/32 X 45°					
							ANGLES 45° - 30°					


<b>ITEM NO.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION OF MATERIALS</b>
1	0	28183A00	HEAT EXCHANGER PUMP TO MOTOR-5 HP
2	1	A10311A0-024	3/8 HOSE X 24
3	1	A10320A0-050	1/2 HOSE X 50
4	2	P0001-06-005	3/8-16 X 1 1/4 HEX BOLT
5	2	P0045-006	3/8 LOCK WASHER
6	1	P0300-018	1/2 MALE X 1/2 FEMALE 90 SWIVEL
7	1	P0300-094	FITTING
8	1	P0300-269	ADAPTOR
9	1	P0303-235	PUMP



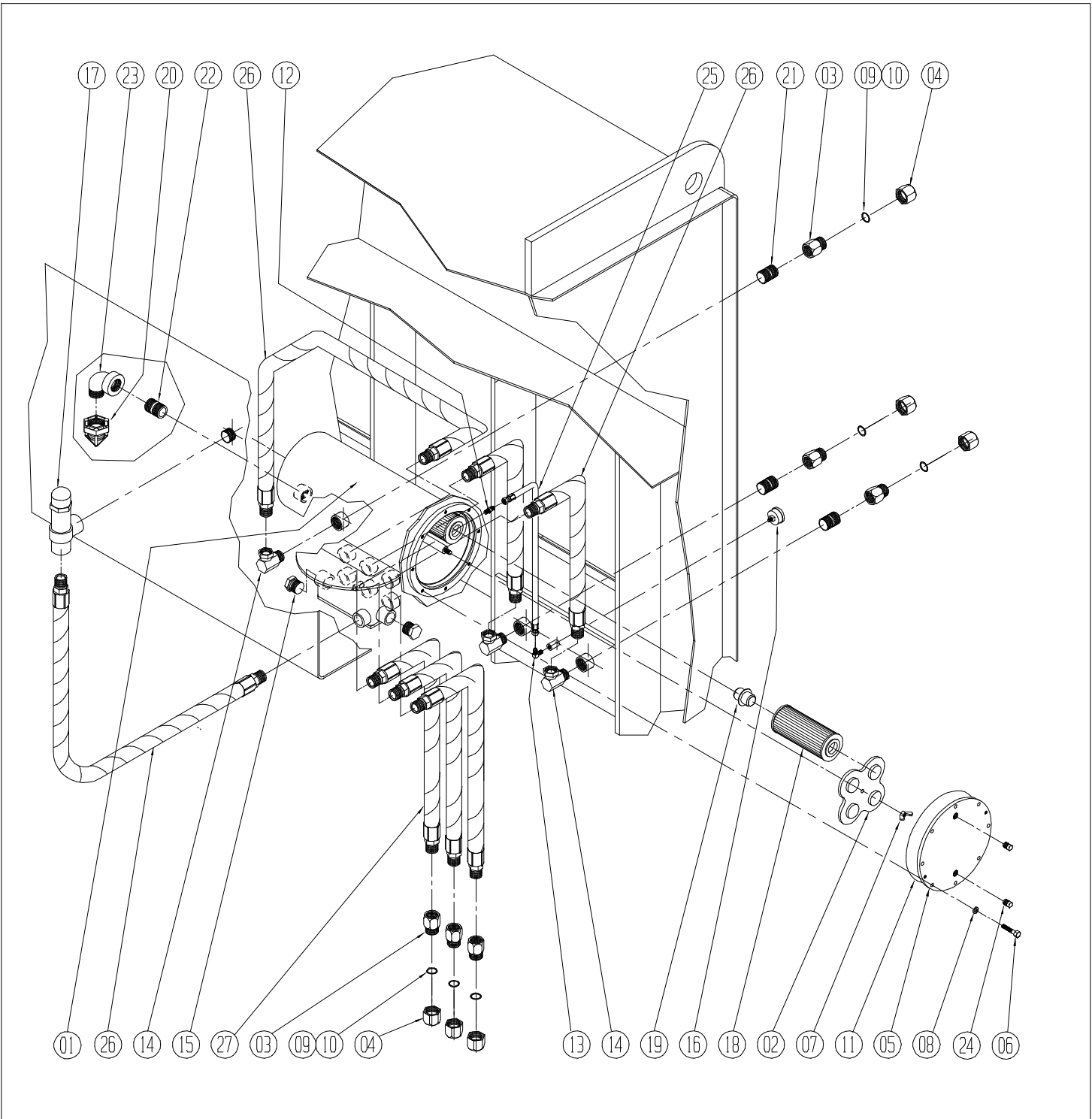
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

1/4"-20 UNC SHCS X 1" (8)  
TORQUE VALUE 144 INCH LBS (MAX)


SPECIFICATIONS:  
PRESSURE PORTS: 1 1/16"-12 (NO. 12)  
TANK PORTS: 1 5/16"-12 (NO. 16)  
WORK PORTS: 1 1/16"-12 (NO. 12)

E									
D									
C									
B									
A	659	CHANGE BILL OF MATERIALS	TAT	11-12-01					
REV	ECD	REVISION RECORD	BY	DATE					
TITLE: 20 GALLON SECTION VALVE, HIGH PRESSURE									
MATERIAL:									
							AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261		
					TOLERANCES UNLESS NOTED DECIMAL .XX 1/16 DECIMAL .XXX 1/32 ANGLES 1/2 1/16		DRAWN: F.J.L. CHECK: DESIGN:		DATE: 10-94 SCALE: 4:1 SHEET 1 OF 1
							NEXT ASS'Y FINAL ASS'Y		DWG. NO. 28188A00

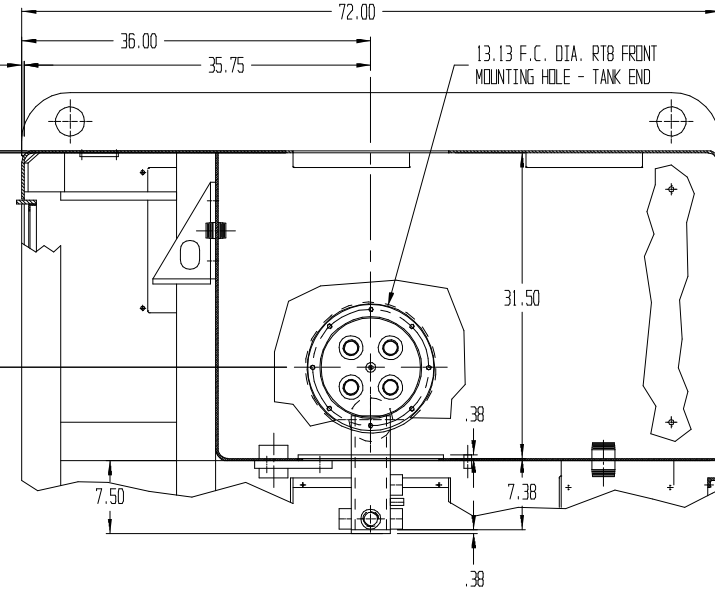
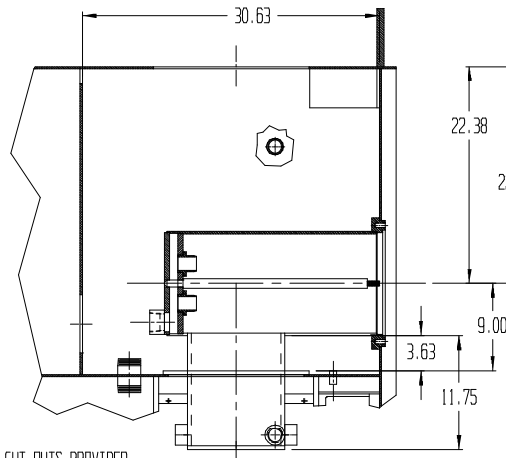
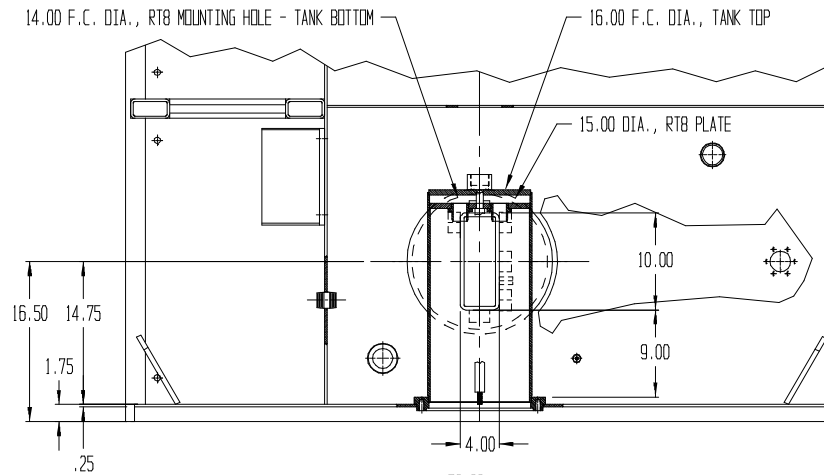
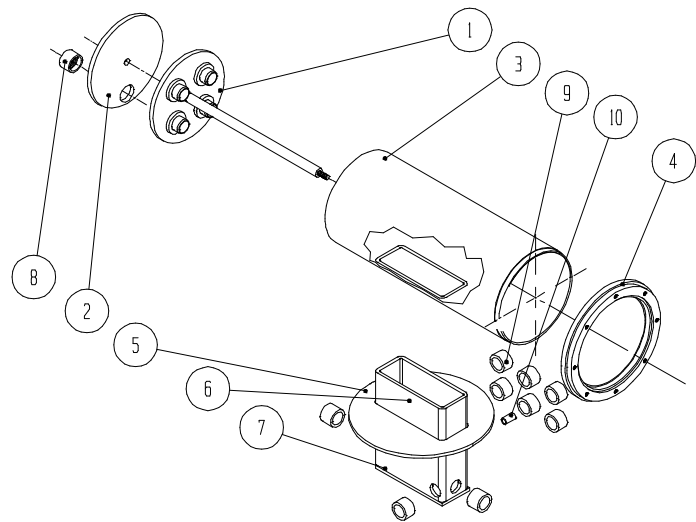
<b>ITEM NO.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION OF MATERIALS</b>
1	2	P0302-306	PILOT OPERATED RELIEF
2	1	P0300-028	1 5/16 ORB PLUG
3	8	P0031-04-004	1/4-20 X 1 SHCS
4	1	A10205P0	4 1/4 X 5 1/4 100-70-02 PEARLITE DUCTILE X 10
5	2	P0302-382	DYNEX DOUBLE SOLENOID VALVE
6	3	P0300-145	1 1/16 ORB PLUG
7	4	P0001-08-006	1/2-13 X 1 1/2 HEX BOLT
8	4	P0045-008	1/2 LOCK WASHER
9	4	28322P00	3/8 X 4 A36 BAR X 1 3/4



05					
04					
03					
02					
01	104	P0309-026 TO P0309-126, ADD P0085-450	DJP	12-98	
REV	ECD	REVISION RECORD	BY	DATE	
TITLE RT8 FILTER & RETURN CONNECTIONS					
MATERIAL NOTED					

		AKKERMAN INC. BROWNSDALE, MN 55918 TEL. (507) 567-2261			
				28000F00	
TOLERANCES UNLESS NOTED		DRAWN	DATE	NEXT ASSEMBLY	FINAL ASSEMBLY
DECIMAL .XX +/- .02	DECIMAL .XXX +/- .005	CHECK	SCALE 1 TO 1	DWG. NO.	28180A00
ANGLES +/- 1°	FRACTIONS +/- 1/16	DESIGN	SHEET 1 OF 1		
CHAMFER ALL SHARP EDGES 1/32 X 45° ANGLES +/- 30°					

ITEM NO.	PART NO.	DESCRIPTION OF MATERIALS	QTY
01	28191A00	RT-8 FILTER WELDMENT AND INSTALLATION	1
02	7100A00	CLOVER COVER ASSEMBLY	1
03	5348P00	1-7/8" STR PRF HEX x 2-7/8"	6
04	7002P02	2" ALUM HEX x 1-3/4" W/85-A3 PLUG	6
05	7092P00	1" 1020 HRS PLATE (14-1/2" x 14-1/2")	1
06	P0001-08-005	1/2" NC HEX BOLT x 1-1/4"	8
07	P0012-008	WING NUT	1
08	P0045-008	1/2" LOCK WASHER	8
09	P0084-123	BACK-UP RING	6
10	P0085-123	O RING	6
11	P0085-450	O RING	1
12	P0300-121	3/8" JIC x 1/4" NPT	1
13	P0300-125	3/8" JIC x 1/4" NPT 90	1
14	P0300-179	1-1/4" NPT MALE x 1-1/4" SWIVEL 90	3
15	P0300-180	1-1/4" NPT MALE HEX PLUG	2
16	P0301-105	FILTER GAUGE	1
17	P0302-157	FULL FLOW RELIEF VALVE	1
18	P0309-102	FILTER ELEMENT	8
19	P0309-115	ELEMENT CONNECTOR	4
20	P0309-126	CHECK VALVE	1
21	P0402-006	1-1/4" NPT CLOSE NIPPLE	3
22	P0402-007	1-1/2" NPT CLOSE NIPPLE	1
23	P0412-007	1-1/2" NPT STREET ELBOW	1
24	P0416-003	1/2" NPT SQ HEAD PLUG	2
25	P0506-040	3/8" HOSE x 40"	1
26	P0520-040	1-1/4" HOSE x 40"	4
27	P0520-070	1-1/4" HOSE x 70"	3



- NOTE:  
 1. CUT OUT ITEM 3 FOR ITEM 6, WELD ITEM 6 TO ITEM 3.  
 2. IF 1 FILTER IS USED ON POWER PACK LOCATE ON SAME END AS CONTROL BOX, CUT OUTS PROVIDED.  
 3. IF SECOND FILTER IS REQUIRED USE CUTOUT MUST BE MADE IN ASSEMBLY.

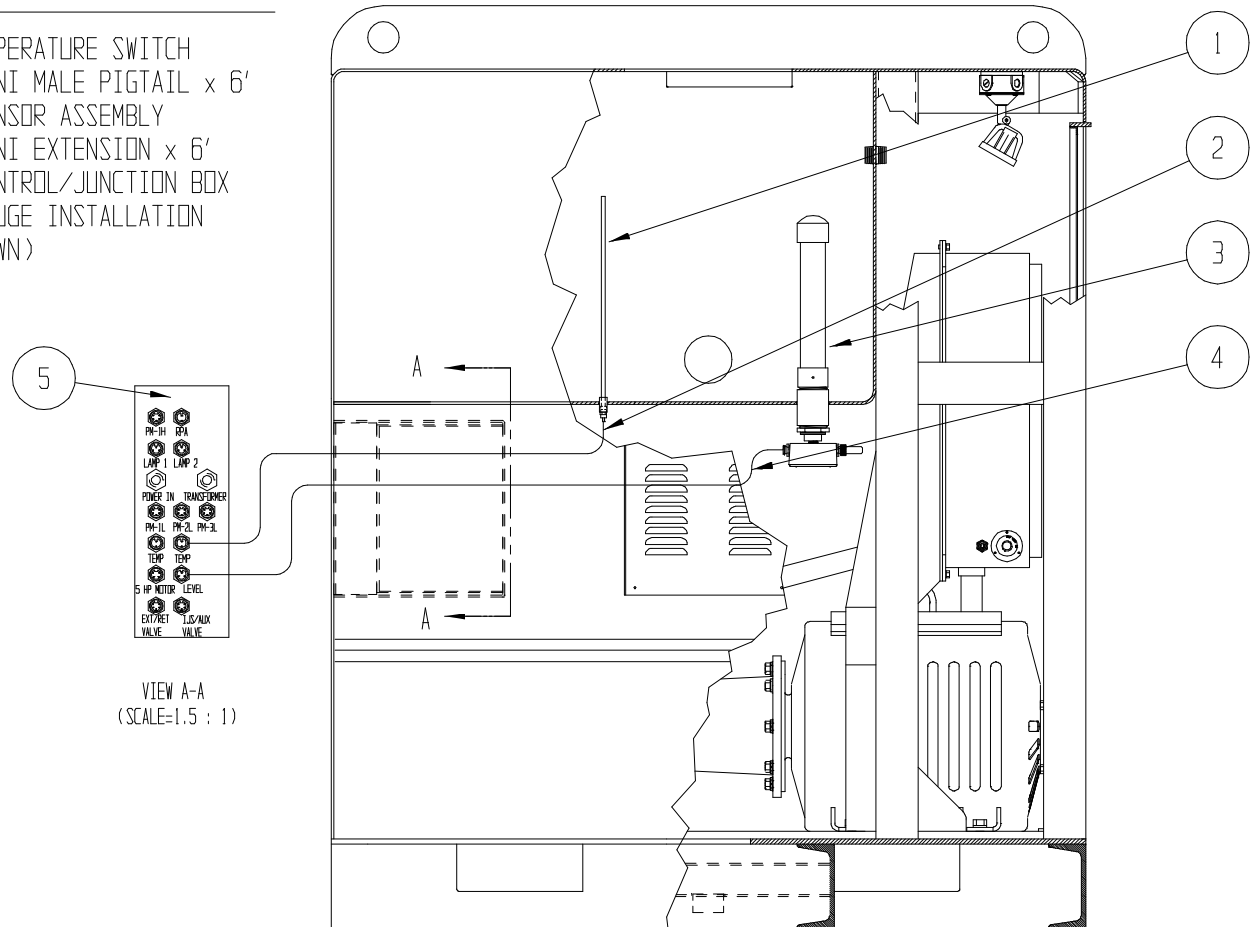
05												
04												
03												28000F00
02												THRU
01												28180A00
REV	ECD	REVISION RECORD			BY	DATE	TOLERANCES UNLESS NOTED	DRAWN F.JL	DATE 3-96	NEXT ASSEMBLY	FINAL ASSEMBLY	
TITLE RT-8 FILTER WELDMENT & INSTANTION - MODEL P400 & P600 POWER PACK							DECIMAL XX 1/100 DECIMAL XXX 1/1000 ANGLES 1/2 1/4 FRACTIONS 1/2 1/4	CHAMFER ALL SHARP EDGES 1/32 X 45° ANGLES 1/2 30°	CHECK	SCALE 1 TO 1	DWG.	28191A00
MATERIAL NOTED								DESIGN F.JL	SHEET 1 OF 1			NO.



AKKERMAN MFG., INC.  
 BROWNSDALE, MN 55918  
 TEL. 507-567-2262

<b>ITEM NO.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION OF MATERIALS</b>
1	1	8003A00	FILTER BASE ASSEMBLY
2	1	7096P00	1/2 HRS PLATE, (11 3/4 X 11 3/4)
3	1	8001P00	10 SCH 20 PIPE X 21 7/8
4	1	7093P00	1 1/2 HRS PLATE, (15 X 15)
5	1	28340P00	.38 THK A36 PLATE, (16 X 16)
6	1	28341P00	3/8 X 4 X 10 A513 TUBE X 11 3/4
7	1	28342P00	3/8 X 4 A36 BAR X 10
8	1	7088P00	1 1/2 NPT COUPLING (P0400-007)
9	9	P0400-006	1 1/4 NPT COUPLING CUT IN HALF (QTY IS HALF)
10	1	P0400-001	1/4 NPT PIPE COUPLING


ITEM	QTY.	PART NO.	DESCRIPTION
1	1	P0056-075	HIGH TEMPERATURE SWITCH
2	1	P0313-042	2 PIN MINI MALE PIGTAIL x 6'
3	1	28193A00	LEVEL SENSOR ASSEMBLY
4	1	P0054-087	3 PIN MINI EXTENSION x 6'
5	REF	28270A00	LOCAL CONTROL/JUNCTION BOX
6	REF	28192A00	SIGHT GAUGE INSTALLATION (NOT SHOWN)

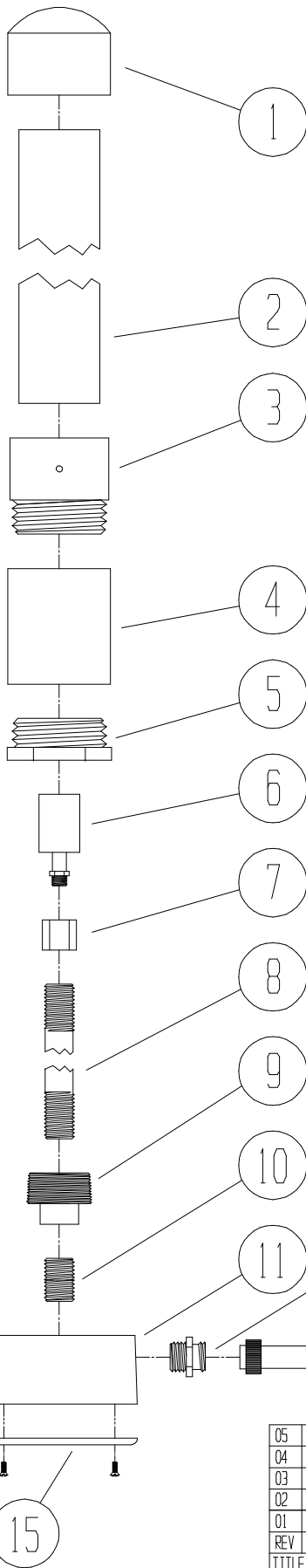


VIEW A-A  
(SCALE=1.5 : 1)

NOTE:

1. USE CRIMP ON SPADES AND HEAT SHRINK TO ATTACH 2 PIN PIGTAIL TO HIGH TEMP SWITCH.


04					 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262	28000F00	28000F00			
03				THRU		THRU				
02				28035F00		28035F00				
01										
REV	ECC	REVISION RECORD		BY	DATE	TOLERANCES UNLESS NOTED	DRAWN DV	DATE 6/97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE: LEVEL / TEMP INDICATORS ASSEMBLY & CONNECTIONS						DECIMAL XX +/- .02 DECIMAL XXX +/- .005 ANGLES +/- 1° FRACTIONS +/- 1/16	CHECK DESIGN FJL	SCALE 1 TO 1 SHEET 1 OF 1	DWG. NO. 28182A00	
MATERIAL: NOTED						CHAMFER ALL SHARP EDGES 1/32 X 45°				

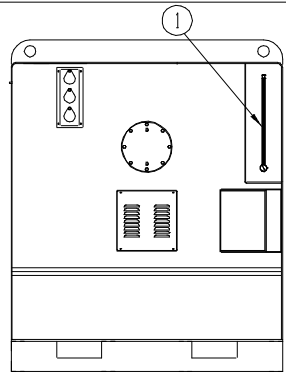
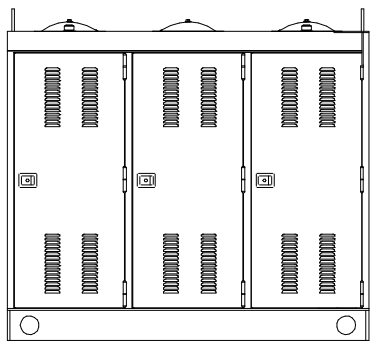
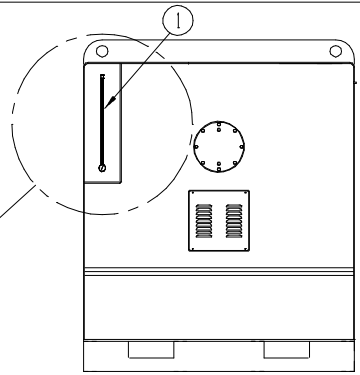
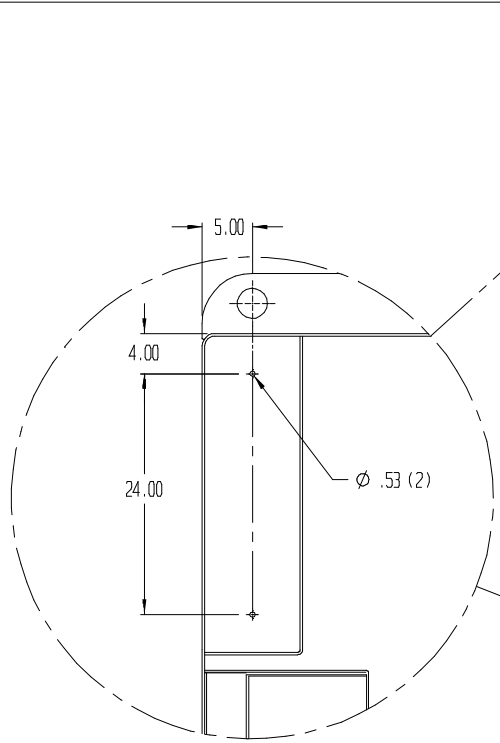


ITEM	QTY.	PART NO.	DESCRIPTION
1	1	28460P00	2" PVC CAP
2	1	P0028-032	2" PVC PIPE x 12" LG.
3	1	28461P00	2" PVC ADAPTER
4	1	P0400-008	2" NPT PIPE COUPLER
5	1	P0413-012	2" NPT MALE x 1-1/2" NPT FEMALE ADAPTER
6	1	P0056-039	LIQUID LEVEL SWITCH
7	1	28462P00	CAP
8	1	P0405-014	1/2" NPT PIPE NIPPLE x 10" LG.
9	1	12301P00	COUPLER
10	1	P0402-003	1/2" CLOSE NIPPLE
11	1	P0310-105	BOX
12	1	P0054-068	3 PIN MINI FEMALE RECEPTACLE
13	1	P0054-277	3 PIN MINI SHORTING PLUG
14	1	P0054-069	3 PIN MINI MALE RECEPTACLE
15	1	P0310-154	COVER

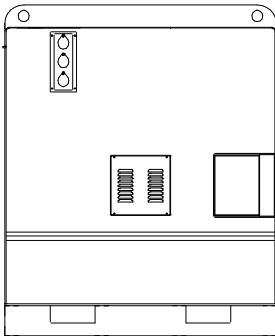
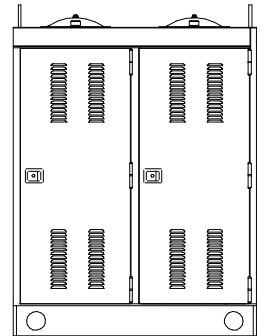
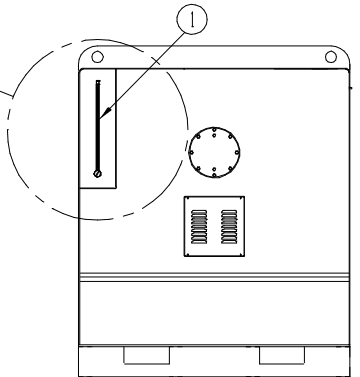
NOTES:

1. EACH END OF ITEM #2 SHOULD BE CLEANED WITH A SPECIAL CLEANER & THEN COATED WITH GLUE BEFORE INSERTING INTO ITEMS #1 & #3.
2. SEE 28215A00 FOR ELECTRIC SCHEMATIC.

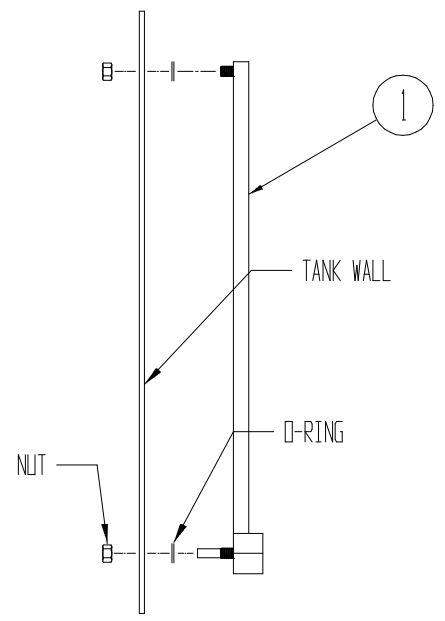
05					 AKKERMAN MFG., INC. BROWNSDALE, MN 55918 TEL. 507-567-2262				
04							28000F00		
03							THRU		
02							28182A00		
01							28035F00		
REV	ECD	REVISION RECORD	BY	DATE	TOLERANCES UNLESS NOTED	DRAWN: KJE	DATE: 6-12-97	NEXT ASSEMBLY	FINAL ASSEMBLY
TITLE: LEVEL SENSOR ASSEMBLY					DECIMAL XX 1/16" 02	CHECK	SCALE 1 TO 1	DWG. NO.	28193A00
MATERIAL: SEE PARTS LIST					DECIMAL XXX 1/8" 005	DESIGN	SHEET 1 OF 1		
					ANGLES 1/2 1/4"				
					FRACTIONS 1/8" 1/16"				
					CHAMFER ALL SHARP EDGES 1/32 1/4"				
					ANGLES 1/4-30"				



P600 POWER PACK  
TYPICAL SIGHT GAUGE LOCATIONS SHOWN



P400 POWER PACK  
TYPICAL SIGHT GAUGE LOCATION SHOWN



GAUGE ASSEMBLY DETAIL

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	P0301-134	SIGHT GAUGE 24"

05					
04					
03					
02					
01					
REV	ECD	REVISION RECORD	BY	DATE	
TITLE SIGHT GAUGE INSTALLATION - MODEL P400 & P600 POWER PACK					
MATERIAL NOTED					



AKKERMAN MFG., INC.  
BROWNSDALE, MN 55918  
TEL. 507-567-2262

TOLERANCES UNLESS NOTED	DRAWN F.J.L.	DATE 3-96	NEXT ASSEMBLY	FINAL ASSEMBLY
DECIMAL .XX 1/4-.02	CHECK	SCALE 1 TO 1	28182A00	28031F00
FRACTIONS 1/16	DESIGN F.J.L.	SHEET 1 OF 1	28192A00	28011F00
ANGLES 1/4°			DWG. NO. 28192A00	
CHAMFER ALL SHARP EDGES 1/32 X 45°				
ANGLES 1/4-30°				



