



## "Re-Submittal -2" Burner Specification Sheet

Job Number	J090272-0	Qty	1	Order Number	B065411	Line Number	1
Customer	ENGLISH BOILER & TUBE			Purchase Order	3542-34540		
Job Name	NESTLE						
Burner Model	LNICM11A-G-30						
Burner Mode of Operation	MOD,ODP	Serial Number					
Code	NFPA						
UL Label							
Heat Exchanger Make	ENGLISH	Heat Exchanger Model	DS STYLE				
Heat Exchanger Type	Water Tube						
Combustion Chamber Pressure	4.5						
Job Site Altitude	2000FT	Clearance Checked By					
Clipped Circuit Board PN							
Gas High Fire Rate	38240	MBH					
Oil High Fire Rate		GPH	PSIG Pump				
Fuel Oil Grade							
UL Group - Gas		UL Group - Oil					
Gas Type	NATURAL						
High Fire Manifold Pressure**	17.5	IN. WC	Side Orifice Drill Size				
Gas Regulator Outlet Pressure	23.7	IN. WC	RPTD Job Pressure	140-280	IN. WC		
Minimum Supply Pressure	78.3	IN. WC	Max Design Pressure *	280.0	IN. WC		
Wiring Diagram	G-J090272-2						
Gas Piping Diagram	PDG-J090272						
Oil Piping Diagram							
General Arrangement Drawing	Addl. Dwg.						
Remote Panel Diagram	Addl. Dwg.						
Additional Drawings							
Control Voltage		Single Phase	HZ	Full Load Amps			
Blower Motor Voltage	460V	3	PH	60	HZ	Full Load Amps	35.0
Oil Pump Motor Voltage			PH		HZ	Full Load Amps	
Compressor Motor Voltage			PH		HZ	Full Load Amps	
Minimum Circuit Ampacity	36.1	Gas Inlet Location					
Ignition System	GAS PILOT SCANNER						
Diffuser Blade Setting	Blast Tube Flange Set						
Comments:							
VERTICAL FGR INLET							

\*\*Approximate operating pressure at the Manifold Inlet for initial start-up. Final Pressure should be determined after checking actual flow with gas meter. Stack temperature, CO, CO2, O2, and Furnace Pressure will help in determining actual input when gas meter is not available for this unit.

\*All components are rated for the Max Design Pressure specified, that pressure must not be exceeded.

**BILL OF MATERIAL**Date: 10/23/15  
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## Re-Submittal -2

Customer: ENGLISH BOILER &amp; TUBE - 14605

Purchase Order: 3542-34540

Job Number: J090272 -0 Item: LNICM11A-G-30

Qty: 1.00

Order Number: B065411 - 1

PFI Part No.	U/M	Qty	Material Description	Ship Loose
004660	FT	1	LD-500-1 LOW DENSITY 1/2 INCH 1000 DEGREE FIBERGLASS BRAIDED ROPE P/N 21032	
059747	EA	1	30 HP 3450 RPM 208/230/460/3 ODP 286T FR . BM HIGH EFFICIENCY BALDOR MOTOR SPEC. 40G048X193	
060160	EA	3	RCEL-005L-PCU-CPT-ALS-A120 REMOTE CONTROLS INC. ELECTRIC ACTUATOR	
090566	EA	1	222 100% CHICAGO DESIGN 62 3500 RPM CW WHEEL WITH 1-7/8" BORE	
141200	EA	2	BZE6-2RQ HONEYWELL MICRO SWITCH	
161300	EA	1	HGP-G 8-35 INCH ANTUNES HIGH GAS PRESSURE SWITCH MANUAL RESET (VENTLESS)	L
163410	EA	1	LGP-H 1-7 PSI ANTUNES LOW GAS PRESSURE SWITCH, MANUAL RESET, 803113101	L
171101	EA	1	RFS-4001-110 CLEVELAND CONTROLS AIR SWITCH W/ COMPRESSION FITTINGS, .17-20", FLANGE MTG.	
195230	EA	1	AGA22 YELLOW SPRING 6-48" W.C.	L
195330	EA	1	AGA40.6580U 1-1/4 INCH VENT CONNECTION PLATE FOR LANDIS & STAEFFA VGD40 VALVE BODY	L
195512	EA	1	VGD40.080U 3 INCH LANDIS & STAEFFA DOUBLE VALVE BODY	L
195800	EA	1	SKP25.011U1 LANDIS & GYR REGULATING GAS VALVE ACTUATOR WITH PROOF OF CLOSURE SWITCH,with (0"-8.5" w.c. Standard	L
195810	EA	1	SKP15.011U1 LANDIS & GYR ON-OFF ACTUATOR WITH PROOF OF CLOSURE SWITCH (SPDT SWITCH)	L
202650	EA	2	8040H8 3/8 INCH 15 PSI NEMA 4 120 VOLT 50/60 HZ. ASCO PILOT VALVE	
210210	EA	1	S302GF02V2AC9 N.O. 3/32 PORT 1/8 PIPE 115V. 150 PSI G.C. VALVE	
273600	EA	1	501221-1 112BV 3 INCH ECLIPSE MANUAL BUTTERFLY VALVE	
284600	EA	1	S262SG02N3GJ7 1-1/4 INCH N.O. VENT VALVE 1,710,000 BTU 1 INCH PD 120V 18.5 WATTS	L
302801	EA	1	325-3 3/8 INCH MAXITROL REGULATOR WITH R325C 10-22 RED SPRING	

**BILL OF MATERIAL**Date: 10/23/15  
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## Re-Submittal -2

Customer: ENGLISH BOILER &amp; TUBE - 14605

Purchase Order: 3542-34540

Job Number: J090272 -0 Item: LNICM11A-G-30

Qty: 1.00

Order Number: B065411 - 1

PFI Part No.	U/M	Qty	Material Description	Ship Loose
320001	EA	1	1092-PF-G 6000 VOLT 50/60 HZ. ALLANSON GAS IGNITION TRANSFORMER WITH GROUND WIRE	
333011	EA	1	B500-0571-5F 500VA 480/240/208 TO 120 50/60 HZ. MICRON STEPDOWN TRANSFORMER WITH FUSE BLOCK	
351580	EA	1	1/4" T58570SSL FULL PORT BRONZE NIBCO BALL VALVE WITH LOCKING HANDLE	
351620	EA	1	1-1/4 INCH T5857066SSL FULL PORT BRONZE NIBCO BALL VALVE WITH LOCKING HANDLE	L
352580	EA	2	3 INCH FIGURE 611 HOMESTEAD THREADED LUBRICATED PLUG VALVE LESS E WRENCH WITH CGA LABEL	L
353200	EA	2	SIZE E HANDLE ONLY FOR HOMESTEAD 2-1/2 AND 3 INCH GAS COCK	L
365820	EA	2	AM-2012-BR M20 MALE TO 1/2 NPT FEMALE ADAPTER FOR NXC40 SERVO MOTOR	
463100	EA	1	0-20 OZ. 0-35 INCH 2-1/2 INCH DIAL 1/4 INCH LM CONNECTION WINTERS GAUGE PLP301 OR 161972A AMETEK US GAUGE	L
		1	0-20 OZ. 0-35 INCH 2-1/2 INCH DIAL 1/4 INCH LM CONNECTION WINTERS GAUGE PLP301 OR 161972A AMETEK US GAUGE	
464300	EA	1	0-15 PSI 2-1/2 INCH DIAL 1/4 INCH LOWER MOUNT LIQUID FILLED WINTERS GAUGE PFQ800	L
534610	EA	1	O RING, 2" O.D. X 1.875 I.D., BUNA N, 94 52K119 (PACKAGED 100 PER PACKAGE)	
610400	EA	1	SLU-35 ILSCO GROUNDING LUG	
612010	EA	18	019904225 ENTRELEC D6/8.ADO 14-16 GAUGE ADO, SCREW TERMINAL,BLOCK	
612070	EA	5	0115120.17 ENTRELEC M10/10 SCREW TERMINAL 6-20 GAUGE, 65A.	
612130	EA	1	0199075.26 ENTRELEC D6/8.ADO 14-16 GAUGE AQO, TERMINAL RED (GAS VALVE)	
612200	EA	4	11511811 ENTRELEC M6/8 8MM TERMINAL BLOCK 50 AMP 8-22 GA. SCREW	
731000	EA	1	TYPE YS12-CI 3/8 INCH TITAN OR NO. 11-M MUELLER Y STRAINER WITH 100 MESH S.S. SCREEN	L
731751	EA	1	TYPE B 3 INCH KECKLEY OR NO. 11-M MUELLE MUELLER Y 3 INCH TYPE B KECKLEY Y	L

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## Re-Submittal -2

Customer: ENGLISH BOILER &amp; TUBE - 14605

Purchase Order: 3542-34540

Job Number: J090272 -0 Item: LNICM11A-G-30

Qty: 1.00

Order Number: B065411 - 1

PFI Part No.	U/M	Qty	Material Description	Ship Loose
731751...	EA...	1...	STRAINER WITH PLUG	L...
879060	EA	1	1/4 INCH STANDARD BLACK SQUARE HEAD PIPE PLUG	
879100	EA	1	3/8 STANDARD BLACK REGULAR CORED MALLEABLE IRON PIPE PLUGS	L
910770	FT	5	3/8 INCH O.D. X .035 3003-0 ALUMINUM TUBE (5 FT. LENGTHS)	L
912794	EA	1	CM9/14 REQ. REFRACTORY DIMENSIONS TAG PER DRAWING M380MC-5	
925020	EA	1	ATMR6 6 AMP 600V. CLASS CC NON-MOTOR RATED FERRAZ SHAWMUT FUSE	
926130	EA	2	ATDR-2.8 2.8 AMP FERRAZ SHAWMUT LOW PEAK DUAL ELEMENT TIME DELAY FUSE	
960200	EA	1	STANDARD NON ASBESTOS GASKET FOR 10 INCH COMPANION FLANGE	
980030	EA	2	1/4 INCH MODEL 740 BALL VALVE WITH TEE HANDLE	L
		1	1/4 INCH MODEL 740 BALL VALVE WITH TEE HANDLE	
980060	EA	1	3/8 INCH MODEL 740 FULL BORE BALL VALVE WITH LONG HANDLE P/N 55421	
B12102	EA	14	CM11/11A 3/8 X 4 GAS JET WITH ORF	
B12151	EA	4	CM10B-11 ROPE RETENTION BRKT	
B13004	EA	1	CM11 ACCESS COVER PLATE "2014"	
B14037	EA	1	CM9-14 SIGHT GLASS COVER PLATE	
B14347	EA	1	CM11 DAMPER BACK PLATE	
B14348	EA	1	CM11/12 DAMPER FRONT PLATE	
B14349	EA	1	CM11 DAMPER TOP WRAP	
B14350	EA	2	CM11 DAMPER SIDE PLATES W/ BEARINGS	
B14351	EA	1	CM11 LONG DAMPER AXLE	

**BILL OF MATERIAL**  
Re-Submittal -2

Date: 10/23/15  
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Customer: ENGLISH BOILER & TUBE - 14605

Purchase Order: 3542-34540

Job Number: J090272 -0 Item: LNICM11A-G-30

Qty: 1.00

Order Number: B065411 - 1

PFI Part No.	U/M	Qty	Material Description	Ship Loose
B14353	EA	2	CM11 DAMPER SHORT AXLE	
B14354	EA	1	CM11 DAMPER FRONT ANGLE	
B14355	EA	2	CM11 DAMPER BLADE STOP	
B14356	EA	1	CM11 DAMPER SAFTEY SCREEN	
B14357	EA	1	CM11 DAMPER BACK ANGLE	
B14359	EA	1	CM11 DPR BASE RIGHT SIDE ANGLE	
B14360	EA	1	CM11 DPR BASE LEFT SIDE ANGLE	
B14524	EA	1	CM11 #222 72% CHICAGO AIR INLET DRILLED	
B14903	EA	1	3/8-24 ALL THRD DPR CROSS LINK ROD 2.969	
B14905	EA	1	3/8-24 ALL THRD CROSS LINK 2.994"	
B20620	EA	1	CM11 222 CHICAGO AIR HOUSING WELD ASSEMBLY	
B20657	EA	1	CM11 222 CHICAGO 284TS FR MOTOR PLATE ASSY	
B20760	EA	1	CM11 7.625" DIA DIFFUSER WELD ASSEMBLY	
B20812	EA	3	CM11 DAMPER BLADE WELD ASSY	
B22039	EA	1	CM11 BLAST TUBE ASSY EXT. ADJ "2014"	
B30013	EA	1	CM11 STRAIGHT GAS GUN ASSEMBLY	
B30215	EA	1	10 INCH DUAL BLADE IFGR DAMPER ASSEMBLY	
E10637	EA	2	EXTENDED PANEL BOX MOUNTING BRACKET 4.718" USED ON C2,3,7,8	
E20113	EA	1	15.5 X 17 DOOR ASSEMBLY "03"	
E24001	EA	1	15.5 X 17 PANEL BOX ASSEMBLY "09"	
E24021	EA	1	17" PANEL TOP (7) RECT. "09"	
E80301	EA	1	15.5 X 17 CHASSIS PC WHITE	

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Job Number: J090272 -0 Item: LNICM11A-G-30

Qty: 1.00

Order Number: B065411 - 1

PFI Part No.	U/M	Qty	Material Description	Ship Loose
M10990	EA	1	CM9-11 AIR DPR RCEL-005L LIPTEN SERVO B	
M10991	EA	1	RCEL-005L LIPTEN SERVO BRKT 3" ECLIPSE	
M10992	EA	1	RCEL-005L SERVO COUP 14mm SQ .625"RD	
M10993	EA	1	RCEL-005L SERVO COUP 14mmSQ 10mmRD	
M10996	EA	1	RCEL-005L SERVO COUP 14mm SQ X .500" RD	
M16270	EA	1	RCEL-005L SERVO BRKT 10"IFGR	
M20058	EA	1	5/8" I.D. DUAL CROSS STRAP ARM ASSY TAPD	
M20065	EA	2	2.125 DAMPER ARM ASSY 5/8" I.D. TAPPED	
M20112	EA	1	LARGE BURNER PED PLATE WELD ASSEMBLY	
R19254	EA	1	10" IFGR INLET FLANGE	
X02034	EA	2	1/4 INCH STD BLACK HALF COUPLING	
X02095	EA	1	1/8 90 DEGREE BRASS STREET ELBOW 116-2	
X02383	EA	2	5/16" DAMPER MICRO SWITCH CAM	
X02450	EA	12	40MST FAFNIR FLANGETTE  NOTE: PACKAGED TWO PER BOX	
X02470	EA	6	RA010RRB FAFNIR BALL BEARING, 5/8"	
X02622	EA	1	1/4 BRASS HEX NIPPLE 122-4	
X02677	EA	1	3/8 X 1/4 COMP-MP STR 68-64	
X04289	EA	4	3/8-24 ROD END BALL JOINT RIGHT 6072K174	
X09246	EA	15	10-32 X 1-1/4 18-8 S.S. ROUND PHILLIPS H EAD MACHINE SCREW	
X09252	EA	4	3/8 X 1 X 25/64 X .050 18-8 S.S. FLAT WA SHER	
X09253	EA	4	3/8 X 1/2 HEX SOCKET HEAD SHOULDER SCREW	
X09292	EA	12	1/4-20 X 3/4 CARRIAGE BOLT GRADE 2 (ZINC PLATED)	
X09301	EA	2	1/4-20 DOUBLE TAB WELD NUT	
		2	1/4-20 DOUBLE TAB WELD NUT	
X09346	EA	8	1/4-20 X 3/4 HEX HEAD CAP SCREW	
X09412	EA	12	3/8-16 X 1-1/2 HEX HD CAP SCREW	

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**BILL OF MATERIAL**Date: 10/23/15  
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Customer: ENGLISH BOILER &amp; TUBE - 14605

Purchase Order: 3542-34540

Job Number: J090272 -0 Item: LNICM11A-G-30

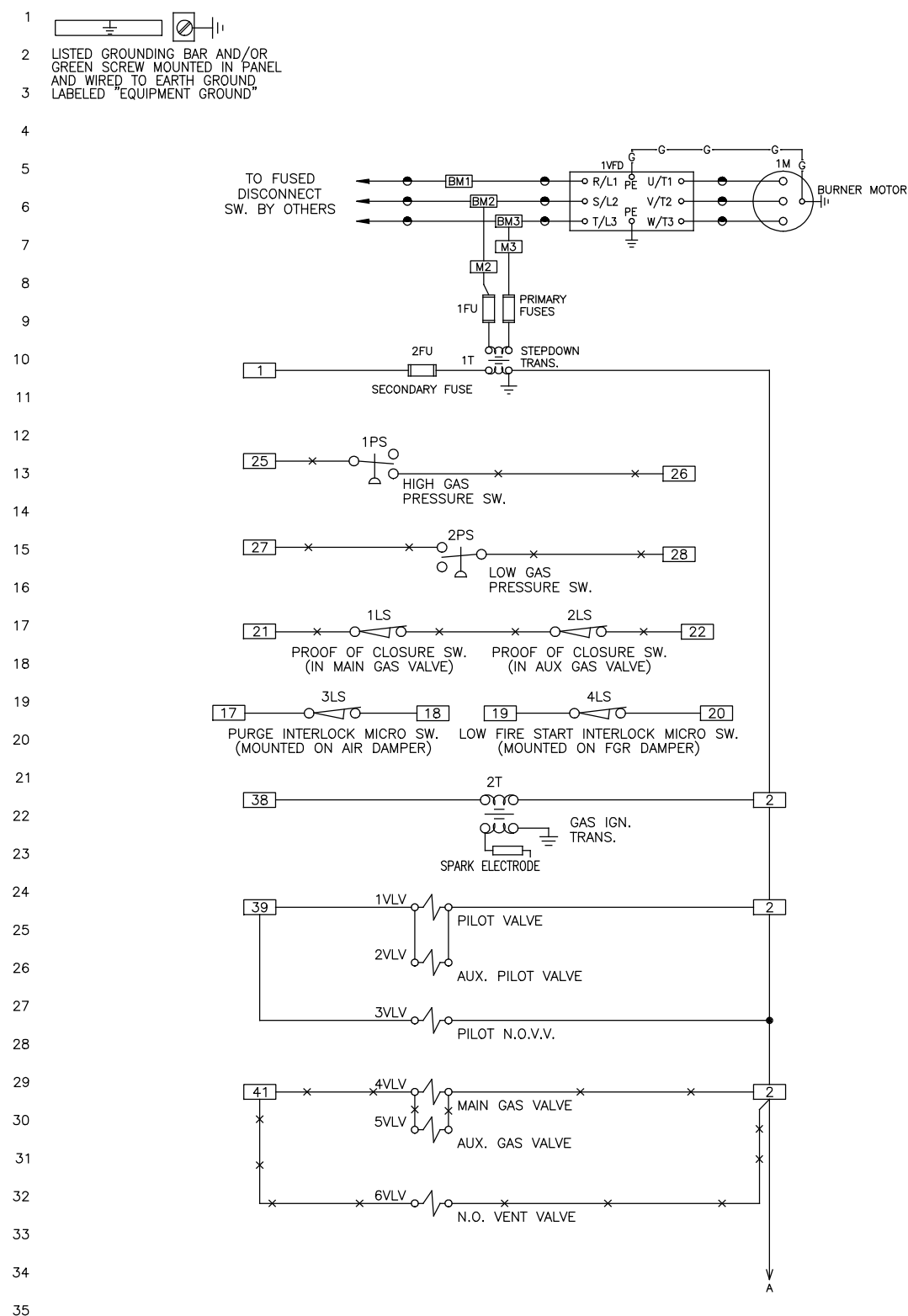
Qty: 1.00

Order Number: B065411 - 1

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PFI Part No.	U/M	Qty	Material Description	Ship Loose
X09499	EA	6	1/4-20 X 5/8 SQ. HEAD CONE POINT SET SCREW	
X09557	EA	15	10-32 NYLON INSET HEX LOCK NUT 90631A411	
X09566	EA	4	5/16-18 WHIZ NUT	
X09569	EA	4	3/8-24 RIGHT HAND HEX NUT PLATED	
X09731	EA	1	2 INCH DIA. 1/8 INCH THICK BOROSILICATE SIGHT GLASS 8477K48	
X09795	IN	44	173220.05 PREPUNCHED DIN RAIL	



1 LISTED GROUNDING BAR AND/OR GREEN SCREW MOUNTED IN PANEL AND WIRED TO EARTH GROUND AND LABELED "EQUIPMENT GROUND"

2 TO FUSED DISCONNECT SW. BY OTHERS

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"USE COPPER CONDUCTORS ONLY."

CAUTION: THROW ALL DISCONNECTS TO OFF BEFORE SERVICING.

— G — EQUIPMENT GND. CONDUCTOR

— F — FLAME CIRCUIT: RUN IN SEPARATE CONDUIT OR SHIELDED CABLE

— — — — — FACTORY WIRING

--- 24V --- } FIELD WIRING

--- 115V --- } SEE SPEC. SHEET

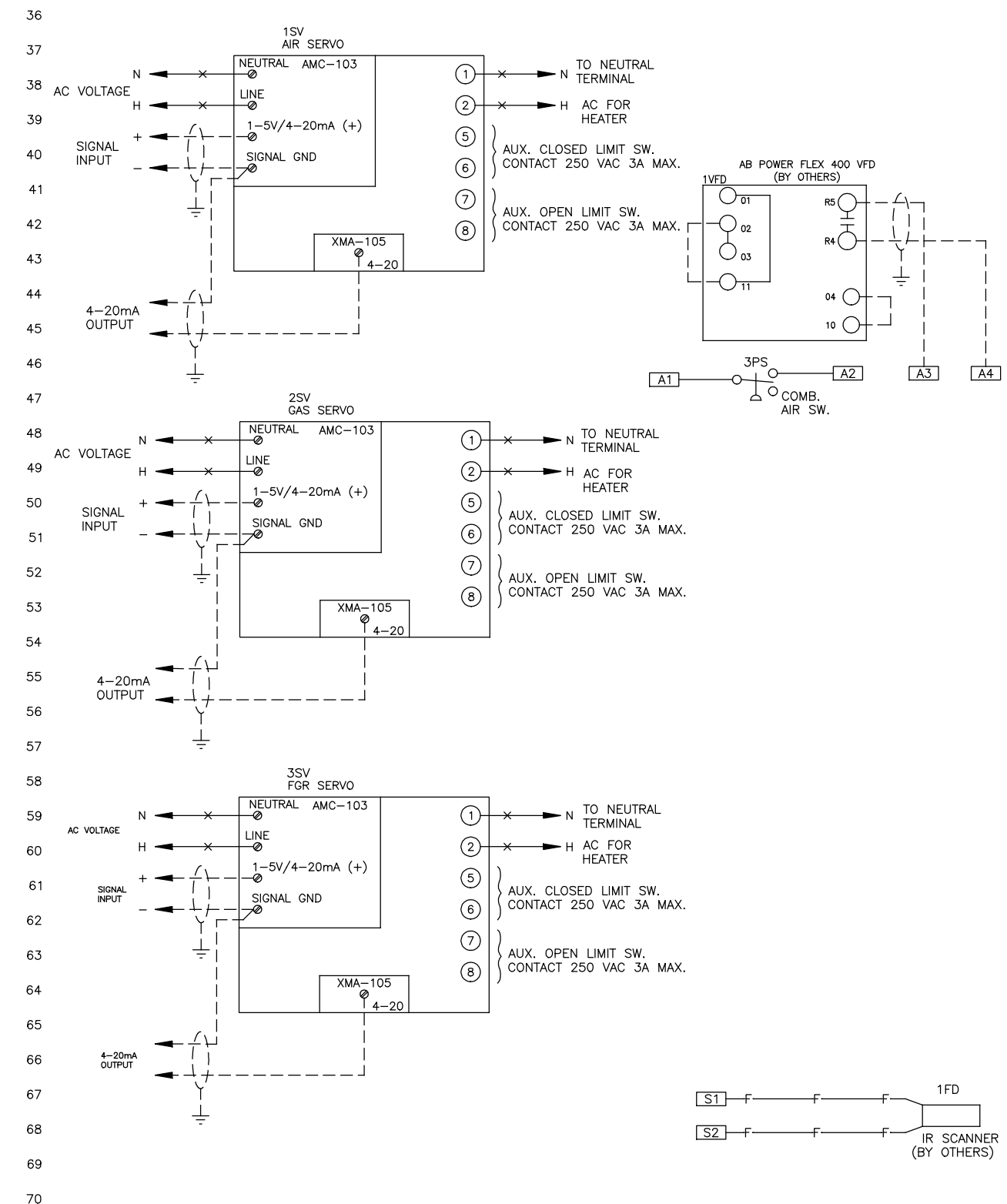
--- 200-575V --- } FOR VOLTAGE

EACH ACTUATOR SHOULD BE POWERED THROUGH ITS OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS-FEED BETWEEN TWO OR MORE ACTUATORS.

ADD GREEN GROUND WIRE TO GROUNDING LUG FOR PILOT VALVES WITH GROUND WIRE.

CAUTION: ALL FIELD WIRING MUST BE WIRED AS SHOWN ON WIRING DIAGRAM.

EQUIPMENT SHOWN ON DIAGRAM IS ONLY PROVIDED AND MOUNTED BY POWER FLAME IF SPECIFICALLY CALLED FOR ON BURNER SPEC. SHEET



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TERMINAL STRIP ARRANGEMENT:

BM1 BM2 M2 BM3 M3 1 2 2 17 18 19 20 21 22 25 26 27 28 A1 A2 A3 A4 38 39 41 S1 S2

**Power Flame Incorporated**

2001 SOUTH 21st STREET PHONE (620) 421-0480  
PARSONS, KANSAS 67357 FAX (620) 421-0948

DRAWN: SV APPVD: CB CODE: NFPA PARENT:74516 DATE: 9/14/15 DWG.: G-J090272-2

PARAMETERS:LTGX-XXX/1-M?X-6X-IX-TU-F7-BX-XX-X-XX-XX-XXX-XX-XXX-VFD-SERVO

2. REVISED AIR SW. & PRESS. SW. WIRING SV/CB 10/22/15

1. ADD VFD, MICRO SWITCHES, & IR SCANNER WIRING SV/CB 10/16/15

REVISION REV'D. DATE

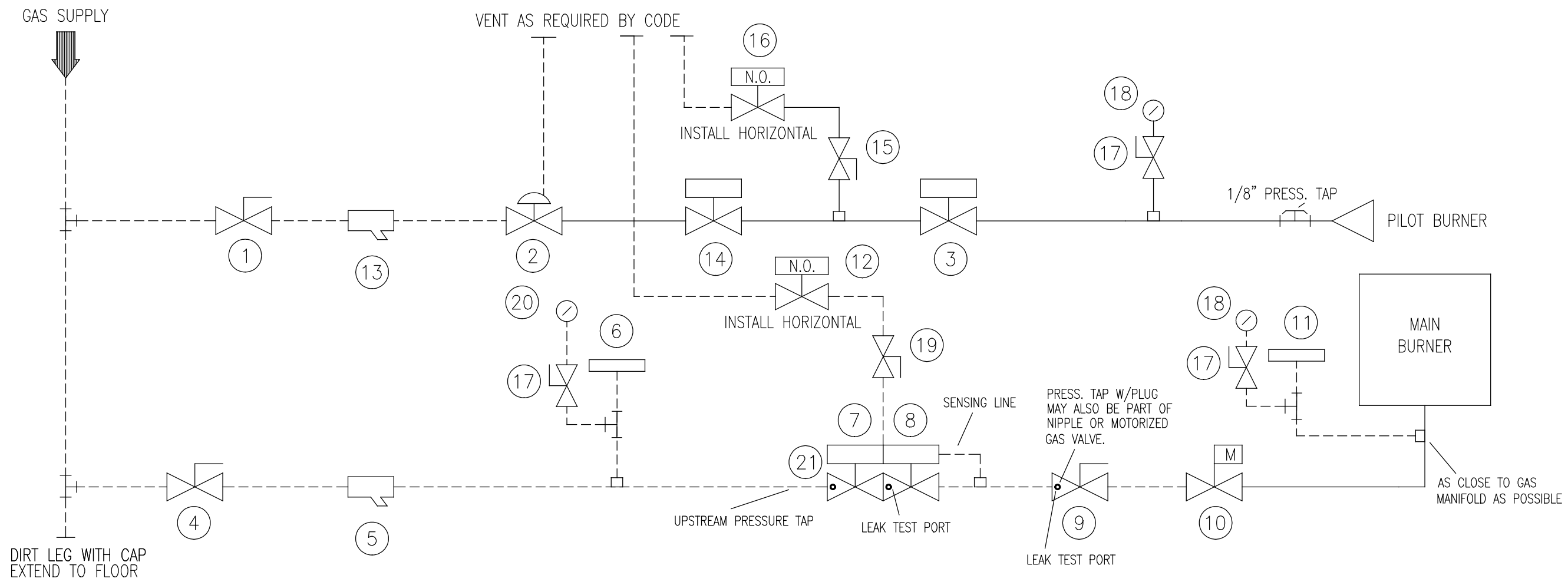
TITLE: MODULATION GAS BURNER 3PH. MOTOR, SCANNER.

JOB NAME: NESTLE

PROPRIETARY AND CONFIDENTIALITY NOTICE: THE CONTENTS OF THIS TEMPLATE CONSTITUTE PROPRIETARY AND CONFIDENTIAL INFORMATION OWNED BY POWER FLAME INCORPORATED. IT SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, AND SHALL NOT BE DISCLOSED TO ANYONE OUTSIDE POWER FLAME WITHOUT THE PRIOR EXPRESS APPROVAL OF POWER FLAME.



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ITEM	PART NUMBER	DESCRIPTION
1	980060	PILOT SHUTOFF COCK
2	302801	PILOT REGULATOR
3	202650	PILOT VALVE
4	352580	MAIN GAS SHUTOFF COCK
5	731751	MAIN GAS 'Y' STRAINER
6	163410	LOW GAS PRESS. SW.
7	195810	AUX. GAS VALVE W/ P.O.C.
8	195800	MAIN GAS VALVE W/ P.O.C.
9	352580	MAIN GAS LEAK TEST COCK
10	273600	BUTTERFLY VALVE
11	161300	HIGH GAS PRESS. SW.
12	284600	N.O. VENT VALVE
13	731000	PILOT 'Y' STRAINER
14	202650	AUX. PILOT VALVE
15	351580	PILOT N.O. VENT VALVE LOCKING COCK
16	210210	PILOT N.O. VENT VALVE
17	980030	GAUGE COCK
18	463100	PRESSURE GAUGE
19	351620	N.O. VENT VALVE LOCKING COCK
20	464300	PRESSURE GAUGE
21	195512	VALVE BODY

EQUIPMENT SHOWN ON DIAGRAM IS ONLY PROVIDED AND MOUNTED BY POWER FLAME IF SPECIFICALLY CALLED FOR ON BURNER SPEC. SHEET.

NOTE: WHEN PILOT GAS PRESS. REG. IS AGA CERTIFIED DEVICE WITH INTEGRAL LEAK LIMITING ORIFICE; SUCH AS RV-20, RV-10 AND RV-12, VENT LINE FOR PILOT GAS PRESS. REG. MAY NOT BE REQ'D. UNLESS SPEC'D. BY OTHER CODES. (NO PROVISION FOR EXTERNAL VENTING ON RV-10 & 12) (RV-20 HAS OPTIONAL VENTING WITH P/N. 30912)

REFER TO SPECIFIC REGULATOR LITERATURE FOR RECOMMENDED STRAIGHT RUN OF PIPING BEFORE/AFTER REGULATOR AND SENSING LINE (IF APPLIC.)

————— FACTORY PIPED  
 - - - - - FIELD PIPED

CAUTION: ALL FIELD PIPED COMPONENTS MUST BE MOUNTED IN THE PROPER LOCATION AND PROPER DIRECTION OF GAS FLOW.

## Power Flame Incorporated

2001 SOUTH 21st STREET      PHONE (620) 421-0480  
 PARSONS, KANSAS 67357      FAX (620) 421-0948



DRAWN: SV	APPVD: CB	DATE: 9/14/15	PARENT: 58681	DWG.: PDG-J090272
DRAWING PARAMETERS: N/A		CODE: NFPA		
TITLE: GAS PIPING FOR MODULATION BURNER WITH INPUTS 12,500,000 AND ABOVE BTU'S.			JOB NAME: NESTLE	
REVISION	REV'D.	DATE		