

NOTES:

- ALL DIMENSIONS IN MILLIMETERS [INCHES IN BRACKETS].
- NATURAL GAS CATALYTIC HEATER PACKAGE IS SUITABLE FOR CLASS 1, DIV.2, GROUP D HAZARDOUS LOCATIONS. TEMPERATURE CODE T2C.
- CATALYTIC LINE HEATER ASSEMBLY BUILT IN COMPLIANCE WITH B149.1-10 USING CSA CERTIFIED CATADYNE HEATERS.
- HEAT TRANSFER COIL DESIGNED & BUILT IN ACCORDANCE WITH ASME B31.3 2010 EDITION.
 DESIGN CRITERIA:
 DESIGN PRESSURE: 8618 kPaG [1250 PSIG]
 DESIGN TEMPERATURE: 260°C [500°F]
 HYDROSTATIC TEST PRESSURE: 13610 kPaG [1974 PSIG]
 MINIMUM DESIGN TEMP.: -29°C [-20°F]
 CORROSION ALLOWANCE: 1.6 [1/16]
- FLANGE BOLT HOLES TO STRADDLE CENTRELINES.
- FRAME (DET.3) TO BE HOT DIP GALVANIZED.
- SHOWN FOR REFERENCE ONLY, SEE P&ID FOR OTHER PARTS.

NO.	DESCRIPTION	PART NO.	QTY
9	NAMEPLATE	304SS	1
8	TEMPERATURE GAUGE 0-200°F	WIKA 30025A005G4	1
7	ELECTRICAL CONDUIT PARTS	C19896-XX	1
6	GAS TRAIN PARTS	-	1
5	SHEET METAL-INTERNAL	304SS	1
4	SHEET METAL #18 GA.	409SS B18999-03	1
3	FRAME ASSEMBLY-GALVANIZED	SA-36 D18997-01	1
2	HEAT TRANSFER COIL-ASSEMBLY	SA-106GR.B	1
1	CATADYNE HEATER-WX 12 x 24 10,000 BTU/HR	W1224-XXXXXX	4
DET	DESCRIPTION	PART NO. NO. PIECE	QTY QTE

BILL OF MATERIAL / LISTE DE MATERIEL

TITLE: CATADYNE LINE HEATER-40,000 BTU/HR

NO.: LH-40

REV.: 0

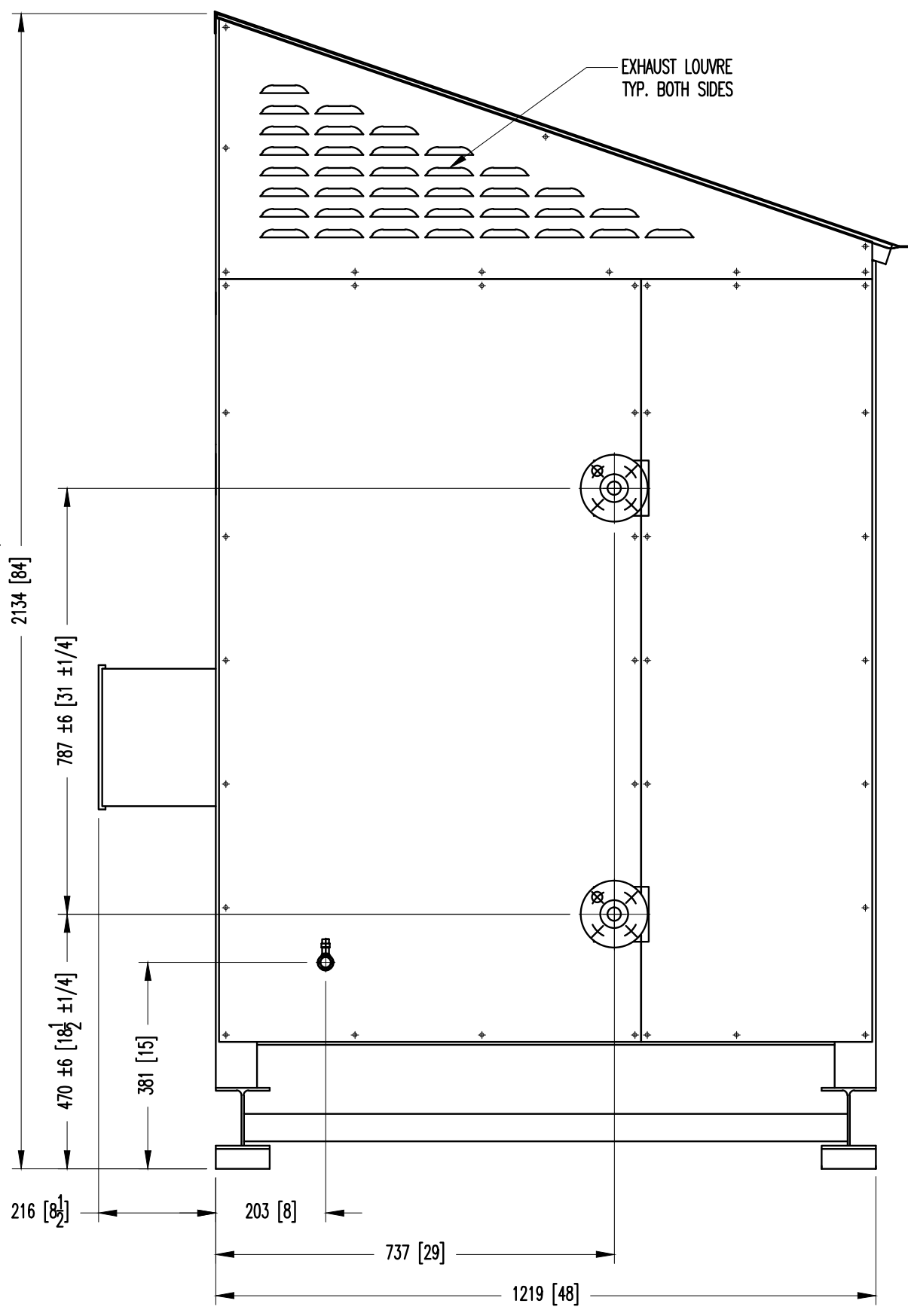
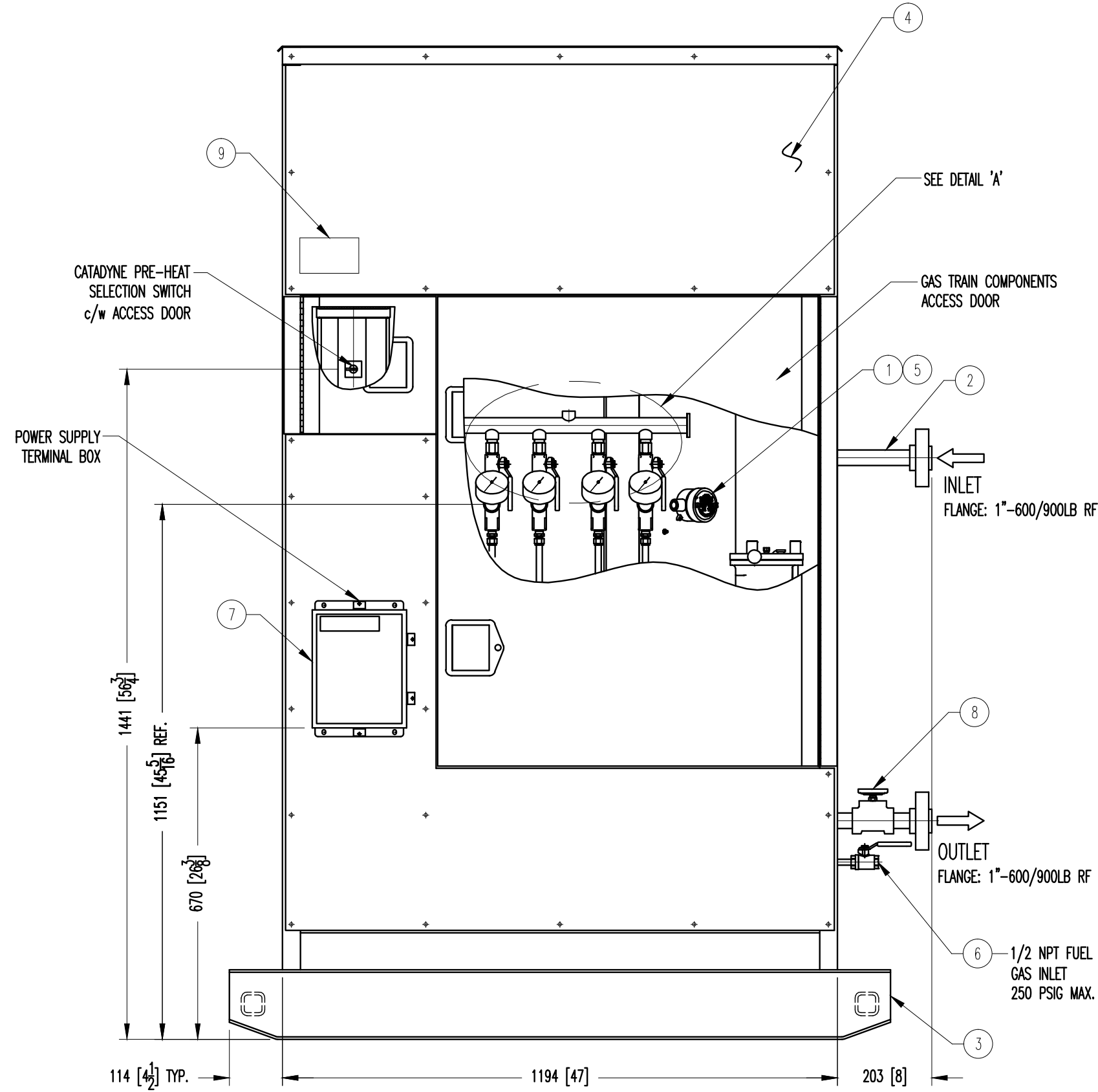
S.O.:	TOLERANCE UNLESS NOTED OTHERWISE			
SCALE: NTS	± ANGULAR	± DECIM.	± 1/8 FRACT.	± 3 METRIC
DRAWN BY:				
CHECKED BY:				
APPROVED BY:				
DIST.:	DATE			

01	LH-40	12VDC-600VAC	40,000	NATURAL GAS (METHANE)	-	-	260°C [500°F]	-	8618 kPaG [1250 PSIG]	12928 kPaG [1875 PSIG]	470 KGS [1035 LBS]	-
ITEM NO.	CATALOG NO.	VOLTS	BTU/HR	FLUID	FLOW RATE	INLET TEMPERATURE	OUTLET TEMPERATURE	DESIGN OPERATING	DESIGN PRESSURE	TEST PRESSURE	APPROX. WEIGHT	ORDER VERIFICATION NO.

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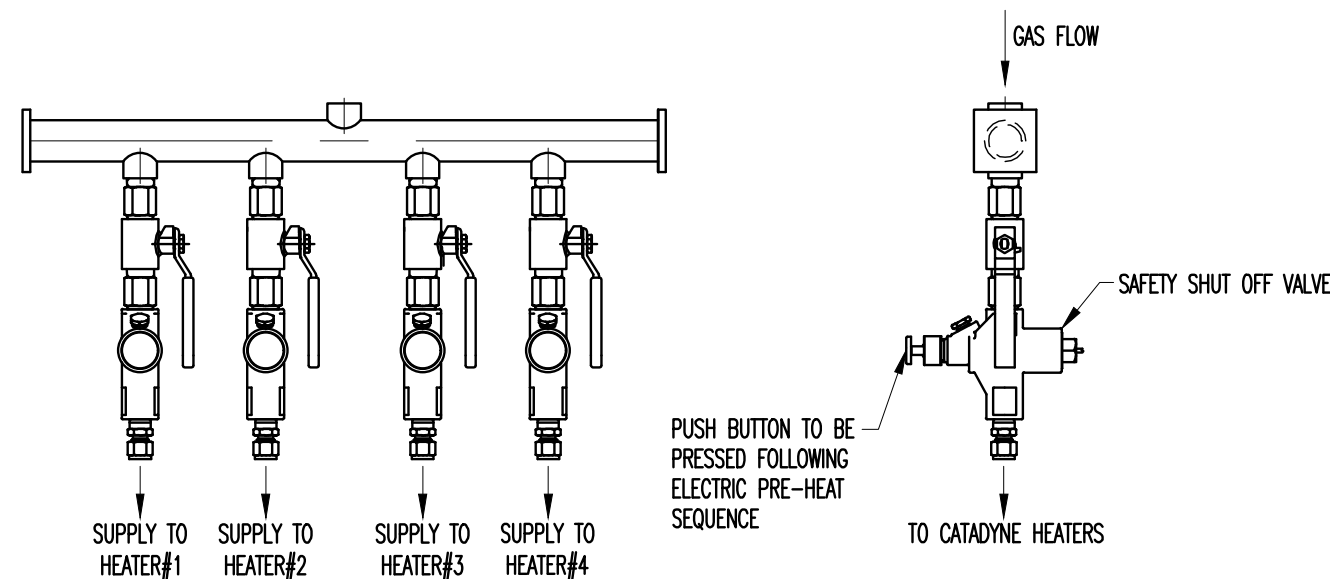
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FRONT VIEW

SIDE VIEW



DETAIL 'A': GAS MANIFOLD (SHOWN WITHOUT GAUGES)

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- 4 HEAT TRANSFER COIL DESIGNED & BUILT IN ACCORDANCE WITH ASME B31.3 2010 EDITION.
DESIGN CRITERIA:
DESIGN PRESSURE: 8618 kPaG [1250 PSIG]
DESIGN TEMPERATURE: 260°C [500°F]
HYDROSTATIC TEST PRESSURE: 13610 kPaG [1974 PSIG]
MINIMUM DESIGN TEMP.: -29°C [-20°F]
CORROSION ALLOWANCE: 1.6 [1/16]

- 5 FLANGE BOLT HOLES TO STRADDLE CENTRELINES.
- 6 FRAME (DET.3) TO BE HOT DIP GALVANIZED.
- 7 SHOWN FOR REFERENCE ONLY, SEE P&ID FOR OTHER PARTS.

NO.	DESCRIPTION	PART NO.	QTY
9	NAMEPLATE	304SS	1
8	TEMPERATURE GAUGE 0-200°F	WIKA	30025A005G4
7	ELECTRICAL CONDUIT PARTS	-	1
6	GAS TRAIN PARTS	-	1
5	SHEET METAL-INTERNAL	304SS	1
4	SHEET METAL #18 GA.	409SS	B18999-03
3	FRAME ASSEMBLY-GALVANIZED	SA-36	D18997-01
2	HEAT TRANSFER COIL-ASSEMBLY	SA-106GR.B	1
1	CATADYNE HEATER-WX 12 x 36 15,000 BTU/HR	W1236-XXXXXX	4
DET	DESCRIPTION	PART NO. NO. PIECE	QTY QTY

BILL OF MATERIAL / LISTE DE MATERIEL

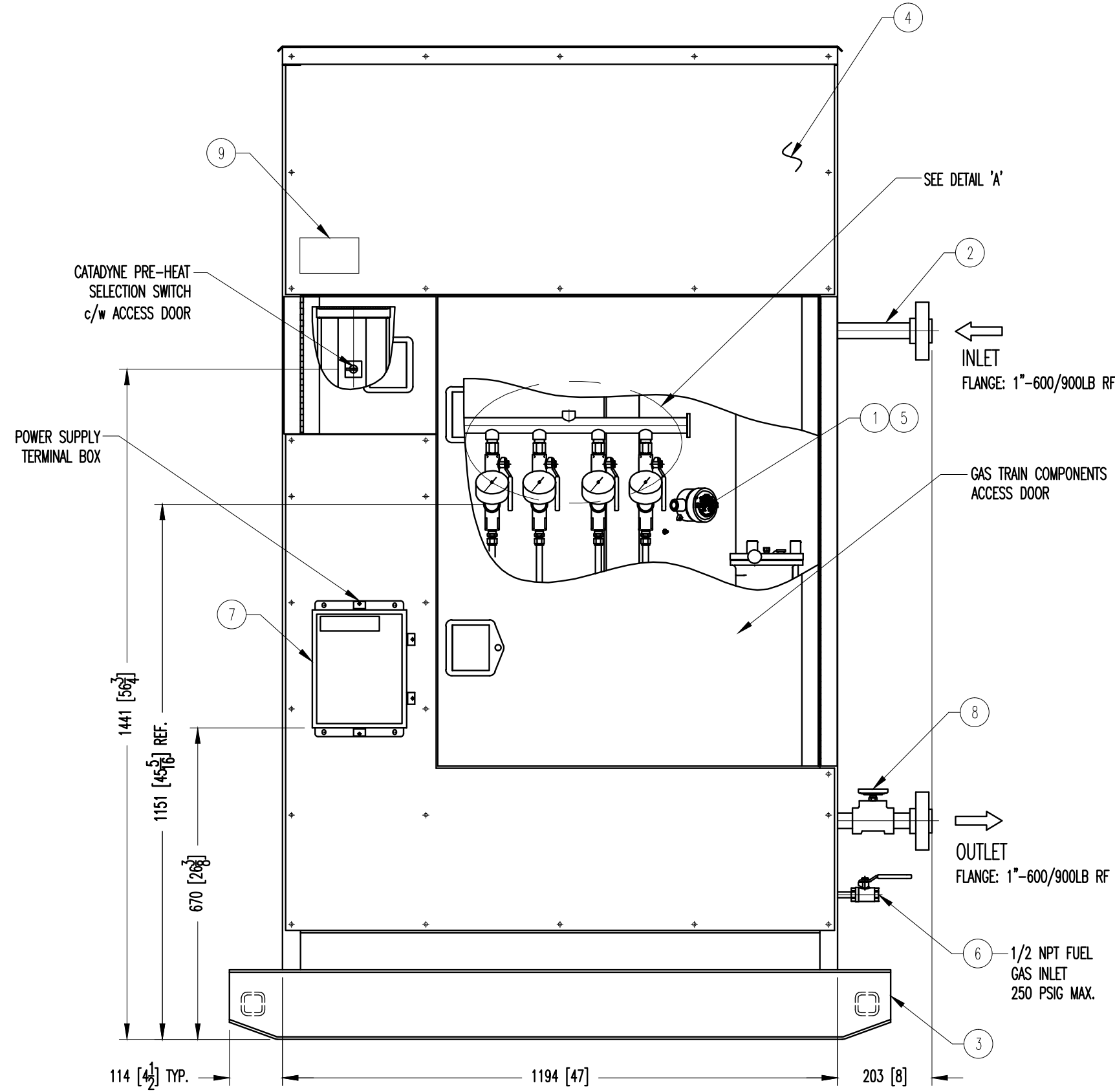
TITLE: CATADYNE LINE HEATER-60,000 BTU/HR		REV. 0
NO.:	LH-60	
REF.:		
S.O.:	TOLERANCE UNLESS NOTED OTHERWISE	
SCALE:	± ANGULAR	± DECIM.
ECHELLE:	± 1/8 FRACT.	± 3 METRIC

ITEM NO.	CATALOG NO.	VOLTS	BTU/HR	FLUID	FLOW RATE	INLET TEMPERATURE	OUTLET TEMPERATURE	DESIGN PRESSURE	OPERATING PRESSURE	TEST PRESSURE	APPROX. WEIGHT	ORDER VERIFICATION NO.
01	LH-60	12VDC-600VAC	60,000	NATURAL GAS (METHANE)	-	-	-	260°C [500°F]	8618 kPaG [1250 PSIG]	12928 kPaG [1875 PSIG]	550 KGS [1210 LBS]	-

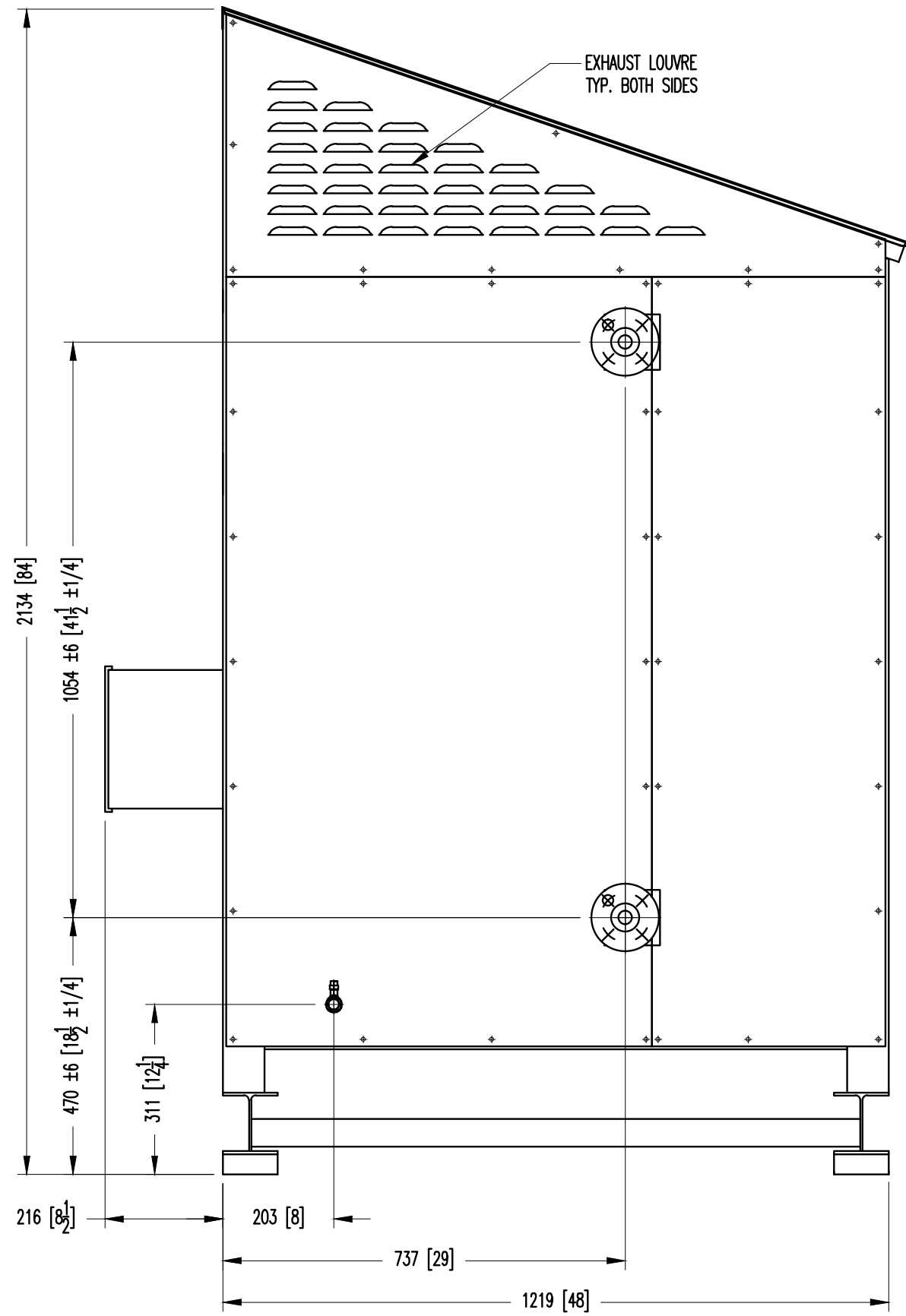
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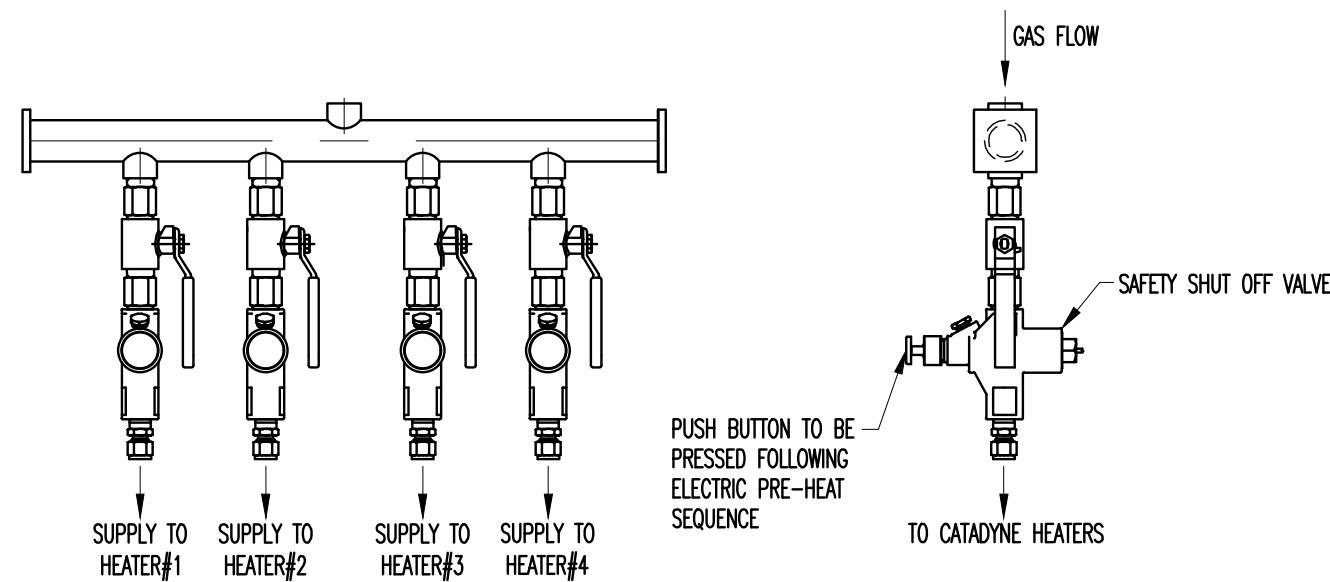




FRONT VIEW



SIDE VIEW



DETAIL 'A': GAS MANIFOLD (SHOWN WITHOUT GAUGES)

NOTES:

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- 4 HEAT TRANSFER COIL DESIGNED & BUILT IN ACCORDANCE WITH ASME B31.3 2010 EDITION.
DESIGN CRITERIA:
DESIGN PRESSURE: 8618 kPaG [1250 PSIG]
DESIGN TEMPERATURE: 260°C [500°F]
HYDROSTATIC TEST PRESSURE: 13610 kPaG [1974 PSIG]
MINIMUM DESIGN TEMP.: -29°C [-20°F]
CORROSION ALLOWANCE: 1.6 [1/16]
- 5 FLANGE BOLT HOLES TO STRADDLE CENTRELINES.
- 6 FRAME (DET.3) TO BE HOT DIP GALVANIZED.
- 7 SHOWN FOR REFERENCE ONLY, SEE P&ID FOR OTHER PARTS.

NO.	DESCRIPTION	PART NO.	QTY
9	NAMEPLATE	304SS	-
8	TEMPERATURE GAUGE 0-200°F	WIKA	30025A005G4
7	ELECTRICAL CONDUIT PARTS	-	-
6	GAS TRAIN PARTS	-	-
5	SHEET METAL-INTERNAL	304SS	-
4	SHEET METAL #18 GA.	409SS	B18999-03
3	FRAME ASSEMBLY-GALVANIZED	SA-36	D18997-01
2	HEAT TRANSFER COIL-ASSEMBLY	SA-106GR.B	-
1	CATADYNE HEATER-WX 12 x 48 40,000 BTU/HR	W1248-XXXXXX	4
DET	DESCRIPTION	PART NO. NO. PIECE	QTY QTY

BILL OF MATERIAL / LISTE DE MATERIEL

TITLE:		CATADYNE LINE HEATER-80,000 BTU/HR	
NO.:	LH-80	REV.:	0

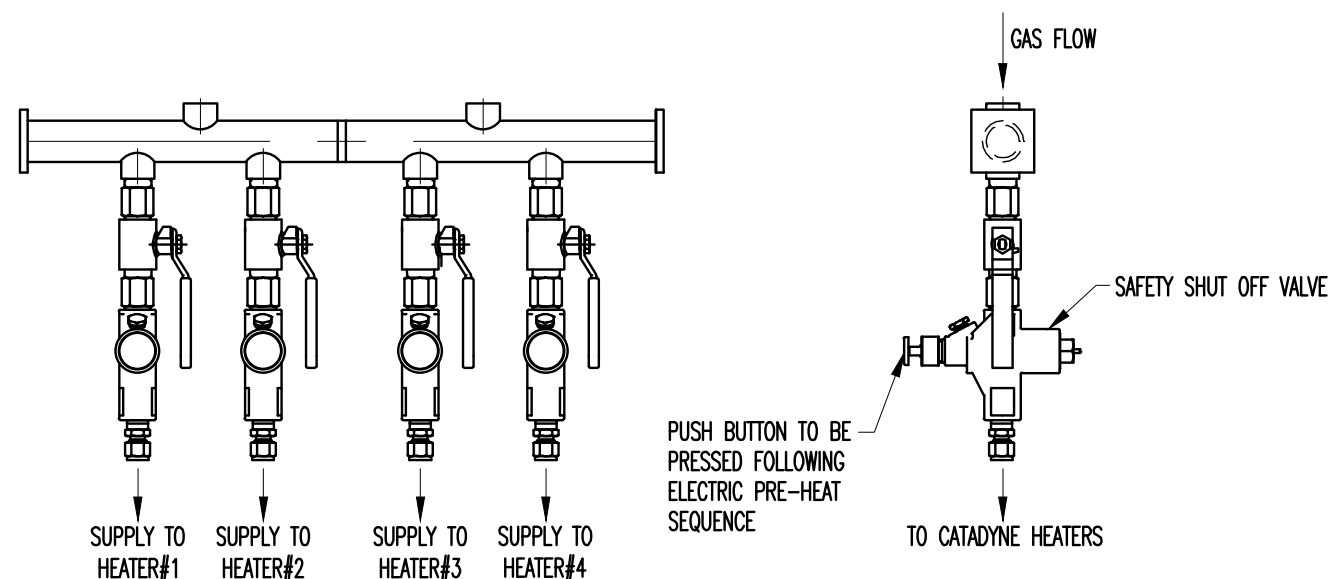
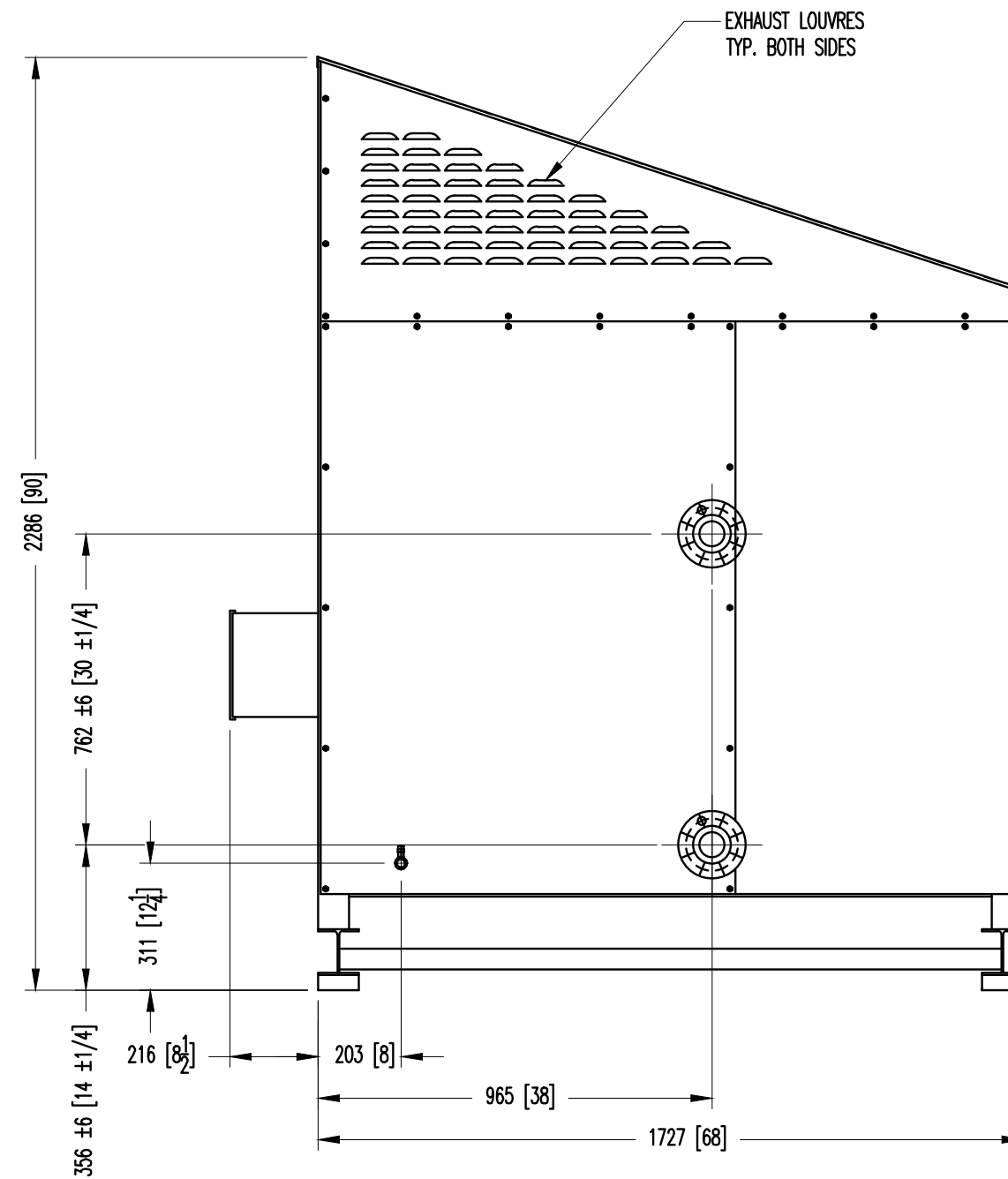
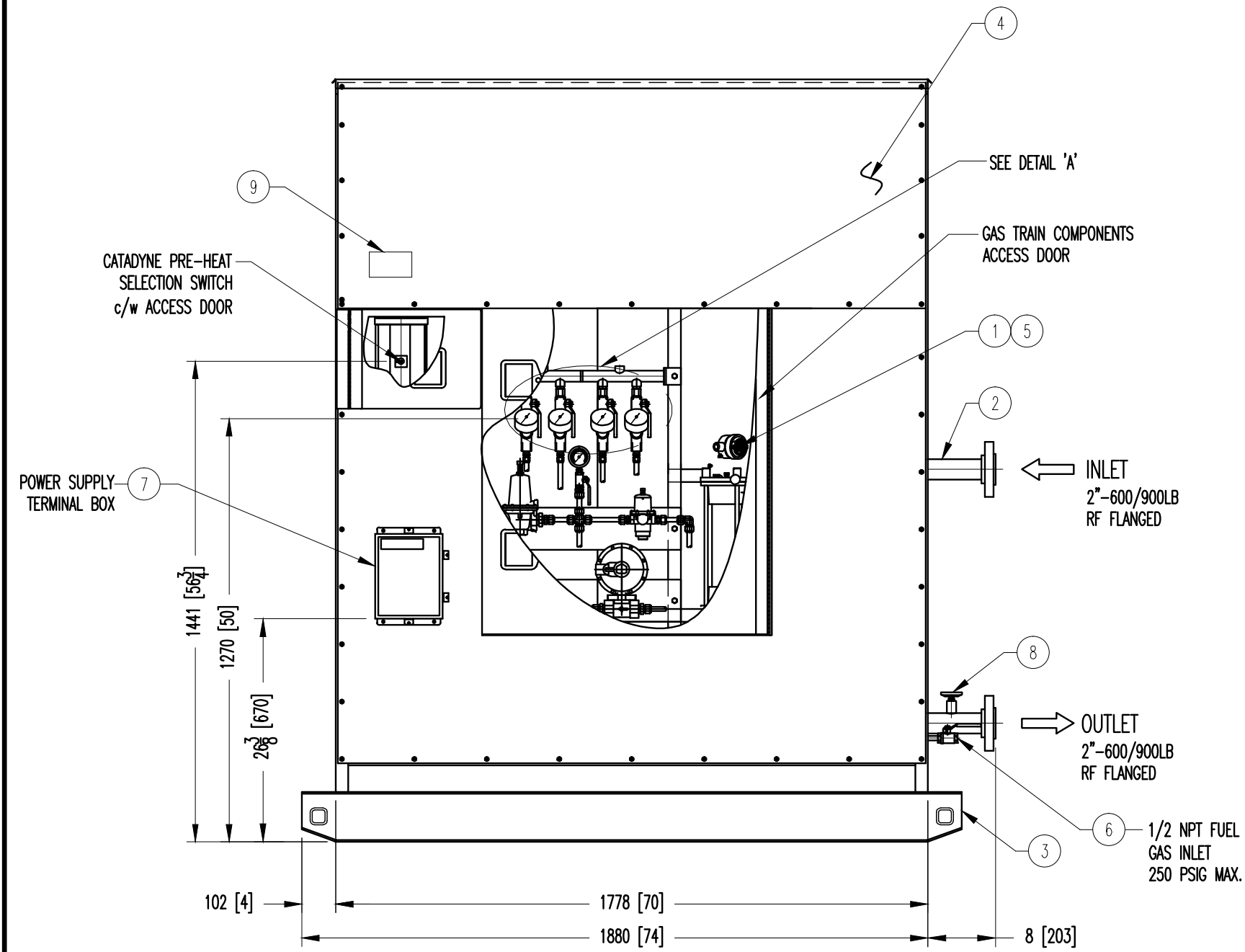
S.O.:	TOLERANCE UNLESS NOTED OTHERWISE			
SCALE:	NTS	± ANGULAR	± DECIM.	± 1/8 FRACT.
ECHELLE:				± 3 METRIC

01	LH-80	12VDC-600VAC	80,000	NATURAL GAS (METHANE)	-	-	-	260°C [500°F]	-	8618 kPaG [1250 PSIG]	12928 kPaG [1875 PSIG]	615 KGS [1350 LBS]	-
ITEM NO.	CATALOG NO.	VOLTS	BTU/HR	FLUID	FLOW RATE	INLET TEMPERATURE	OUTLET TEMPERATURE	DESIGN OPERATING	DESIGN OPERATING	DESIGN PRESSURE	TEST PRESSURE	APPROX. WEIGHT	ORDER VERIFICATION NO.

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DESIGN PRESSURE: 8618 kPaG [1250 PSIG]
DESIGN TEMPERATURE: 260°C [500°F]
HYDROSTATIC TEST PRESSURE: 13610 kPaG [1974 PSIG]
MINIMUM DESIGN TEMP.: -29°C [-20°F]
CORROSION ALLOWANCE: 1.6 [1/6]
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01	LH-100	12VDC-600VAC	100,000	NATURAL GAS (METHANE)	-	-	260°C [500°F]	-	8618 kPaG [1250 PSIG]	12928 kPaG [1875 PSIG]	820 KGS [1804 LBS]	-
ITEM NO.	CATALOG NO.	VOLTS	BTU/HR	FLUID	FLOW RATE	TEMPERATURE		PRESSURE		APPROX. WEIGHT	ORDER VERIFICATION NO.	
						INLET	OUTLET	OPERATING	DESIGN			TEST

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DET	DESCRIPTION	PART NO. NO. PIECE	QTY QTY
9	NAMEPLATE	304SS	1
8	TEMPERATURE GAUGE 0-200°F	WIKA	1
7	ELECTRICAL CONDUIT PARTS	-	1
6	GAS TRAIN PARTS	-	1
5	SHEET METAL-INTERNAL	304SS	1
4	SHEET METAL #18 GA.	409SS	1
3	FRAME ASSEMBLY-GALVANIZED	SA-36	1
2	HEAT TRANSFER COIL-ASSEMBLY	SA-106GR.B	1
1	CATADYNE HEATER-WX 24x30	25,000 BTU/HR	4

BILL OF MATERIAL / LISTE DE MATERIEL

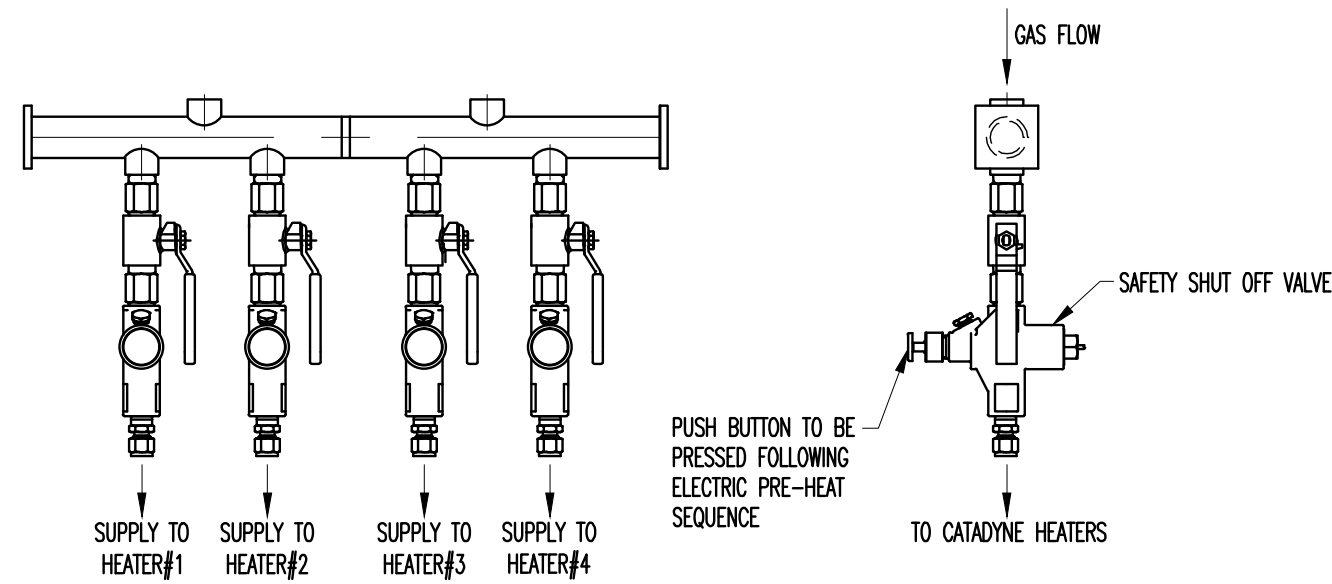
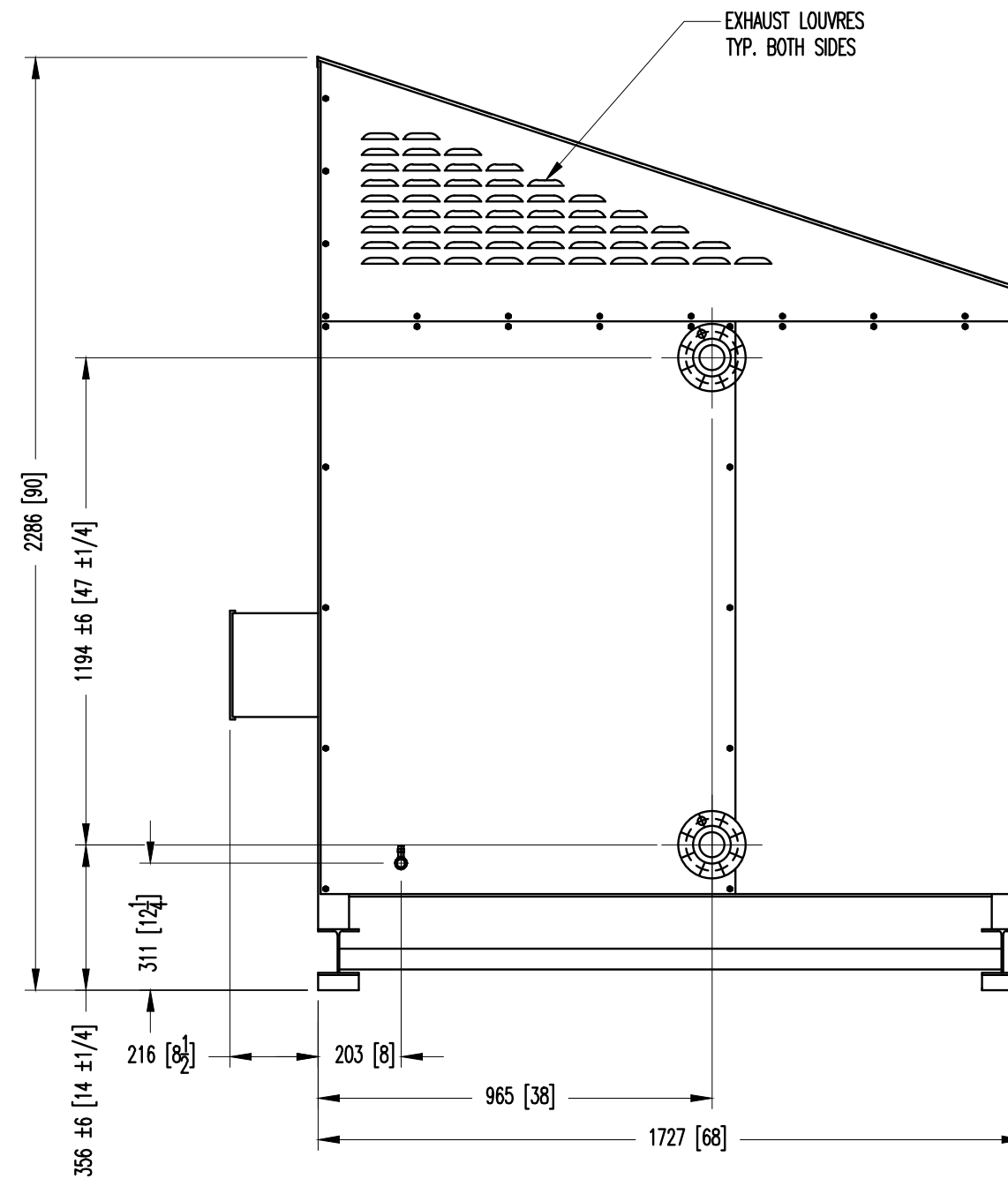
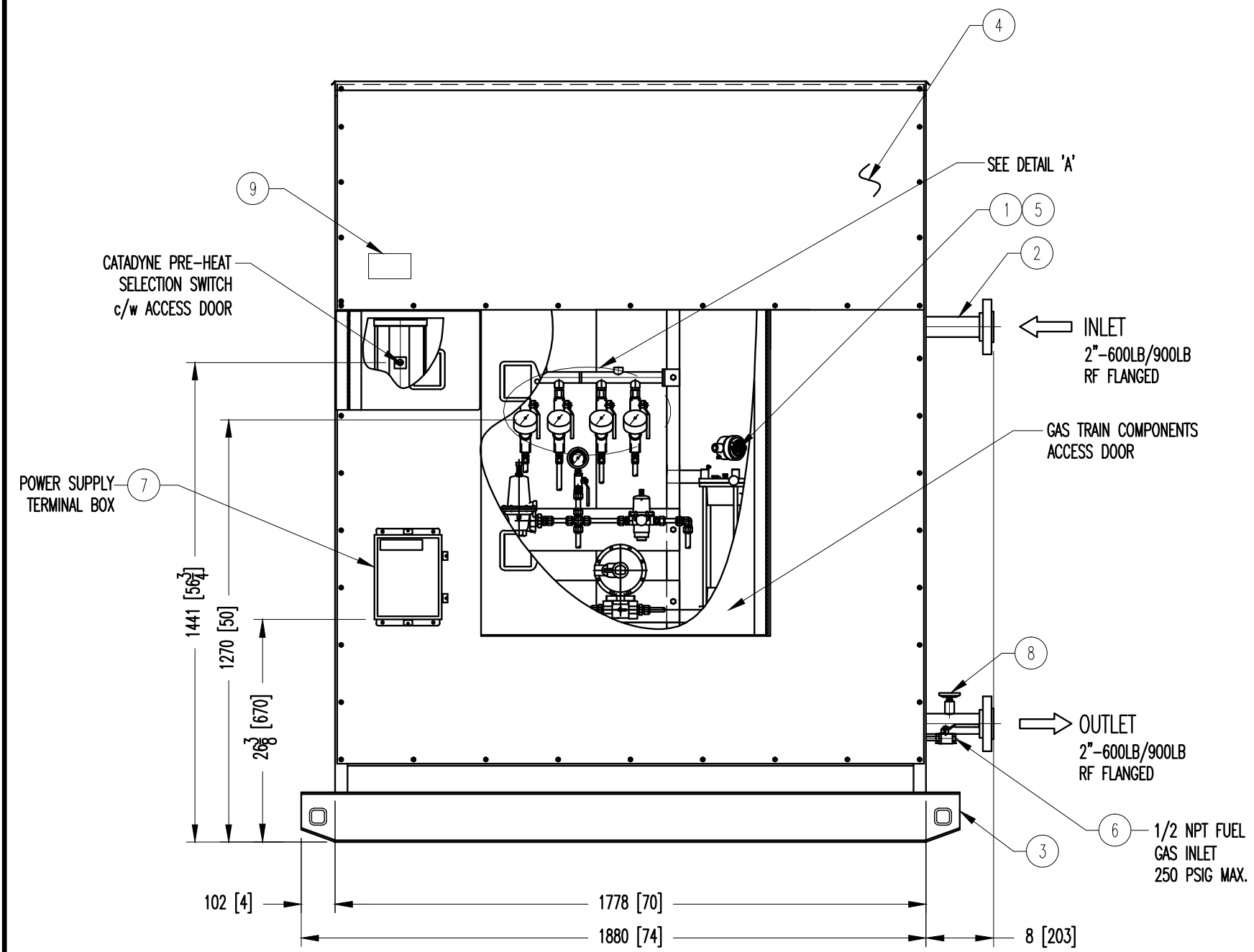
TITLE: CATADYNE LINE HEATER 100,000BTU/HR

NO.: LH-100

REV.: 0

S.O.:	TOLERANCE UNLESS NOTED OTHERWISE			
SCALE:	NTS	± ANGULAR	± DECIM.	± 1/8 FRACT.
ECHELLE:				± 3 METRIC

CCI Thermal Technologies Inc. Heating and Filtration Solutions



DETAIL 'A': GAS MANIFOLD (SHOWN WITHOUT GAUGES)

NOTES:

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- [3] CATALYTIC LINE HEATER ASSEMBLY BUILT IN COMPLIANCE WITH B149.1-10 USING CSA CERTIFIED CATADYNE HEATERS.
- [4] HEAT TRANSFER COIL DESIGNED & BUILT IN ACCORDANCE WITH ASME B31.3 2010 EDITION.
DESIGN CRITERIA:
DESIGN PRESSURE: 8618 kPaG [1250 PSIG]
DESIGN TEMPERATURE: 260°C [500°F]
HYDROSTATIC TEST PRESSURE: 13610 kPaG [1974 PSIG]
MINIMUM DESIGN TEMP.: -29°C [-20°F]
CORROSION ALLOWANCE: 1.6 [1/6]
- [5] FLANGE BOLT HOLES TO STRADDLE CENTRELINES.
- [6] FRAME (DET.3) TO BE HOT DIP GALVANIZED.
- [7] SHOWN FOR REFERENCE ONLY, SEE P&ID FOR OTHER PARTS.

NO.	DESCRIPTION	PART NO.	QTY
9	NAMEPLATE	304SS	1
8	TEMPERATURE GAUGE 0-200°F	WIKA 30025A005G4	1
7	ELECTRICAL CONDUIT PARTS	-	1
6	GAS TRAIN PARTS	-	1
5	SHEET METAL-INTERNAL	304SS	1
4	SHEET METAL #18 GA.	409SS B18999-01	1
3	FRAME ASSEMBLY-GALVANIZED	SA-36 D18997-02	1
2	HEAT TRANSFER COIL-ASSEMBLY	SA-106GR.B	1
1	CATADYNE HEATER-WX 24x48	40,000 BTU/HR W2448-XXXXXX	4
DET		PART NO. NO. PIECE	QTY QTE

BILL OF MATERIAL / LISTE DE MATERIEL

TITLE: CATADYNE LINE HEATER 160,000BTU/HR	
NO.: LH-160	REV.: 0
REF.:	

S.O.:	TOLERANCE UNLESS NOTED OTHERWISE			
SCALE: NTS	± ANGULAR	± DECIM.	± 1/8 FRACT.	± 3 METRIC

DRAWN BY:		<p>CCI Thermal Technologies Inc. Heating and Filtration Solutions</p>
CHECKED BY:		
APPROVED BY:		
DIST.: G	DATE	

ITEM NO.	CATALOG NO.	VOLTS	BTU/HR	FLUID	FLOW RATE	TEMPERATURE		PRESSURE			APPROX. WEIGHT	ORDER VERIFICATION NO.
						INLET	OUTLET	OPERATING	DESIGN	TEST		
01	LH-160	12VDC-600VAC	160,000	NATURAL GAS (METHANE)	-	-	260°C [500°F]	8618 kPaG [1250 PSIG]	12928 kPaG [1875 PSIG]	1090 KGS [2400 LBS]	-	

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