

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703. Fax: (207) 874-8716

Permit No: 05-163	Issue Date: PERMIT ISSUED SEP - 8 2005	GBL: 156 F002001
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Location of Construction: 311 Ocean Ave	Owner Name: Cheverus High School A Maine	Owner Address: 267 Ocean Ave	Phone:
Business Name:	Contractor Name: Warren Mechanical	Contractor Address: 39 Warren Ave Westbrook	Phone: 207-8566746
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: R3

Past Use: School Cheverus High School	Proposed Use: Cherverus High School/ Install boilers in basement	Permit Fee: \$696.00	Cost of Work: \$74,800.00	CEO District: 4
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Proposed Project Description: Install boilers in basement	<p>FIRE</p> <p><input type="checkbox"/> Denied</p> <p>Tanks to UCPA 30 Boiler to UCPA 31</p> <p>Use Group: E Type: HUMZ</p> <p>Signature: <i>Capt. Case</i> Signature: <i>JMB 9/7/05</i></p> <p>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)</p> <p>Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied</p> <p>Signature: _____ Date: _____</p>
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Permit Taken By: Idobson	Date Applied For: 08/12/2005	Zoning Approval	
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision <i>OK</i></p> <p><input type="checkbox"/> Site Plan</p> <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p>Date: <i>JMB 9/7/05</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date: _____</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in District or Landmar</p> <p><input type="checkbox"/> Does Not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>JMB</i></p>
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT _____ ADDRESS _____ DATE _____ PHONE _____

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE _____ DATE _____ PHONE _____

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 05-1163	Date Applied For: 08/12/2005	CBL: 156 F002001
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Location of Construction: 311 Ocean Ave	Owner Name: Cheverus High School A Maine	Owner Address: 267 Ocean Ave	Phone:
Business Name:	Contractor Name: Warren Mechanical	Contractor Address: 39 Warren Ave Westbrook	Phone: (207) 856-6746
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	

Proposed Use: Cheverus High School/ Install boilers in basement	Proposed Project Description: Install boilers in basement
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Dept: Zoning **Status:** Approved **Reviewer:** Jeanne Bourke **Approval Date:** 09/07/2005
Note: **Ok to Issue:**

Dept: Building **Status:** Approved **Reviewer:** Jeanine Bourke **Approval Date:** 09/07/2005
Note: **Ok to Issue:**

- 1) Installation shall comply with 2003 International Mechanical Code and State of Maine Oil and Solid Fuel Board Laws and Rules
- 2) The installation must comply with the State of Maine Gas Regulations.

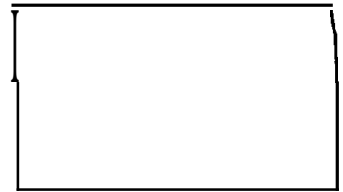
Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 08/18/2005
Note: **Ok to Issue:**

- 1) Install boilers to NFPA 31
Tank install to comply with NFPA 30



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 311 Ocean Ave. Portland Use of Building School Date 8/12/05
Name and address of owner of appliance Cheverus High School

Installer's name and address Warren Mechanical Dominic DiBiase
39 Warren Ave, Westbrook, Me. Telephone 856-6746

Location of appliance:

- Basement
- Attic
- Floor
- Roof

Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: Boiler's 2-Burnham V-11
1-Burnham V-9

U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:

- Master Plumber # M.570002520
- Solid Fuel # _____
- Oil # _____
- Gas # _____
- Other _____

Type of Chimney:

Masonry Lined
Factory built _____

Metal
Factory Built U.L. Listing # _____

Direct Vent
Type _____

Type of Fuel Tank

- Oil
- Gas

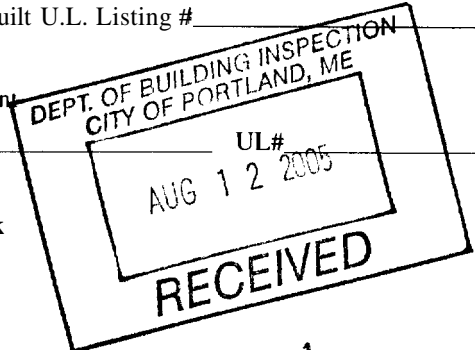
Size of Tank 3000 GAL

Number of Tanks 1

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 4,800

Permit Fee: \$ 696.00 OK 8/17/05



Approved

Approved with Conditions

Fire: _____

Ele.: _____

Bldg.: JMB

See attached letter or requirement

Inspector's Signature

Date Approved

Signature of Installer

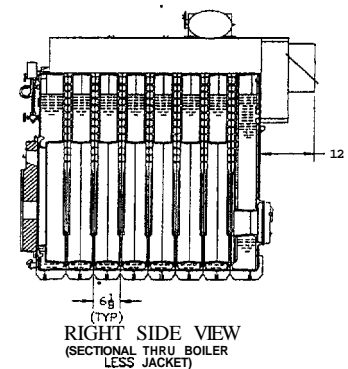
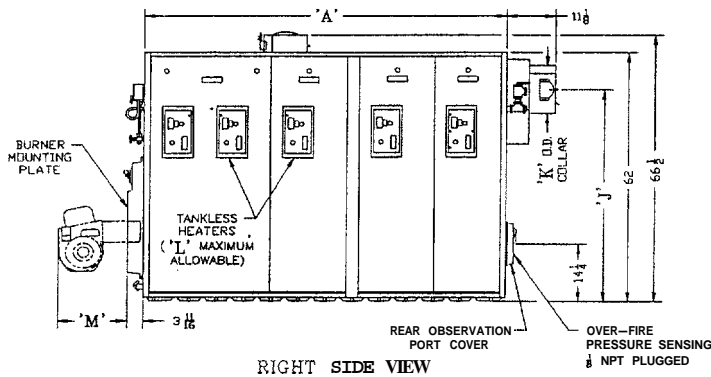
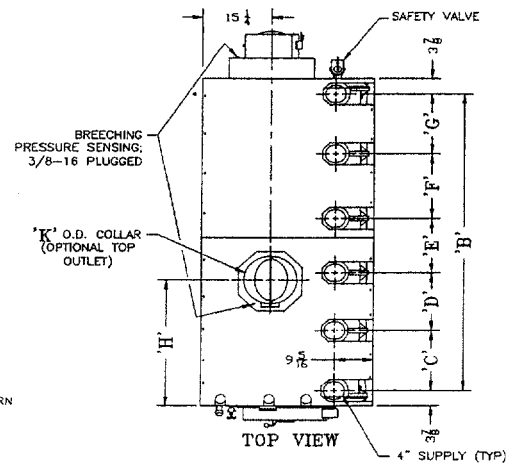
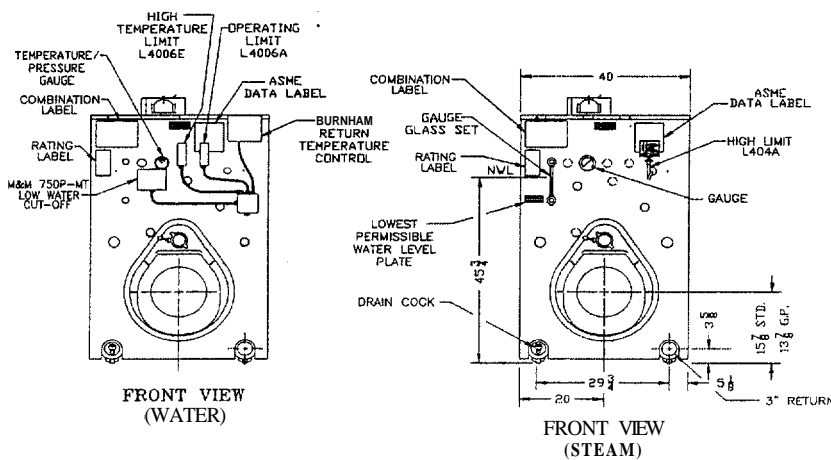
Dominic DiBiase

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

Ratings	
GROSS OUTPUT, BTU/HR. :	3,580,000
BOILER HORSE POWER, HP :	106.9
NET RATING, BTU/HR :	2,780,000
STEAM WORKING PRESSURE :	15 psi
NET SQ. FT. STEAM :	11,583

Approval or Certificate	
I=B=R	X
U.L.	X (Burner Only)
A.S.M.E.	X
SBI	
AGA	
OTHER	

A	B	C	D	E	F	G	H	J	K	L	M
112-3/8	104-5/8	30-7/8	24-1/2	24-1/2	24-3/4	----	53-5/16	51	16	7	----

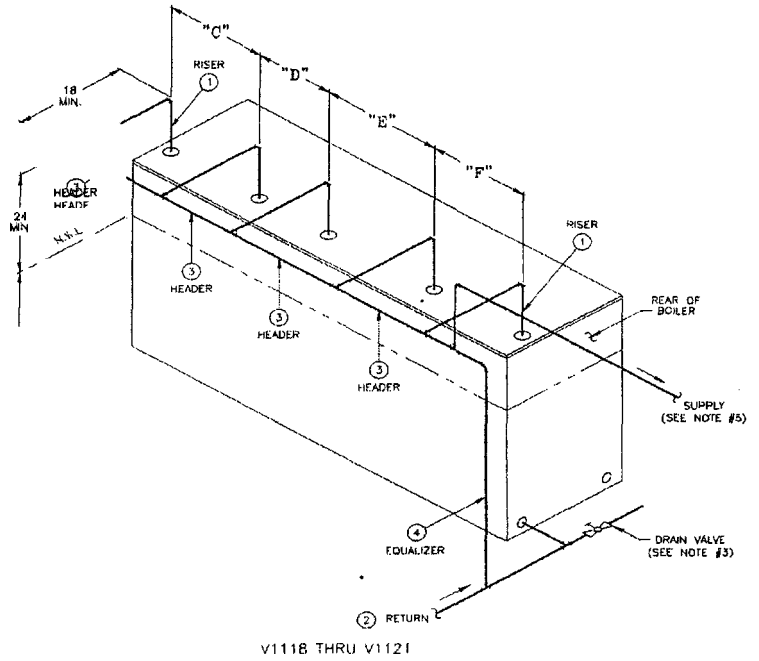


Recommended Service Clearances	
Front - Includes "M" Dim.	54"
Left Side	36"
Right Side	12"
Top (Rear Outlet)	24"
Top (Top Outlet)	48"

Flue Outlet Size	Top Flue Outlet	Rear Flue Outlet	
		Combustible Surfaces	Non-Combustible Surfaces
8" Dia.	18"	42"	27"
10" Dia.		45"	30"
12" Dia.		48"	33"
14" Dia.		49"	34"
16" Dia.		52"	37"
18" Dia.		54"	39"

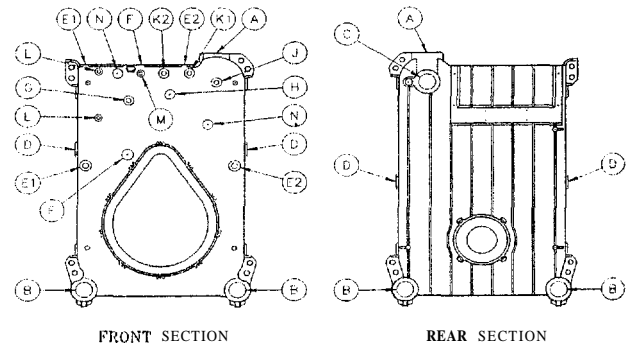
materials, see Installation & Operating Instructions Manual, Page 7.

(1)	(2)	(3)	(4)	
RISER (QT.) SIZE	RETURN	HEADER	EQUALIZER	
(5) 4"	3"	8"	4"	
'A'	'B'	'C'	'D'	'E'
30-7/8"	24-1/2"	24-1/2"	24-3/4"	-----



CONTROL TAPPING LOCATIONS

LOCATION	SIZE OF TAPPINGS	STEAM	WATER
A	4	Supply	Supply
B	3	Return	Return
C	3	Safety Valve	Relief Valve
D	1-1/2	Crown Inspection/Washout (Special Order Only)	Crown inspection/Washout (Special Order Only)
E1	1	Float L.W.C.O.	Float L.W.C.O.
E2	1	Float L.W.C.O.	Float L.W.C.O.
F	1	Auxiliary Float L.W.C.O. (Special Order Only)	-----
G	3/4	-----	Probe L.W.C.O.
H	3/4	-----	Auxiliary Probe L.W.C.O. (Special Order Only)
J	3/4	Firing Rate Pressure Control	Firing Rate Temperature Cntrl
K1	3/4	Operating Pressure Limit Control	Operating Temperature Limit Control
K2	3/4	High Pressure Limit Control/ Manual Reset	High Temperature Limit Control/Manual Reset
L	1/2	Gauge Glass	Not Used - Plug
M	1/2	Steam Gauge (Bush to 1/4")	Temperature/ Pressure Gauge
N	3/4	-----	Auxiliary Tapping (Special Order Only)



(1)

V-9 SERIES BOILER

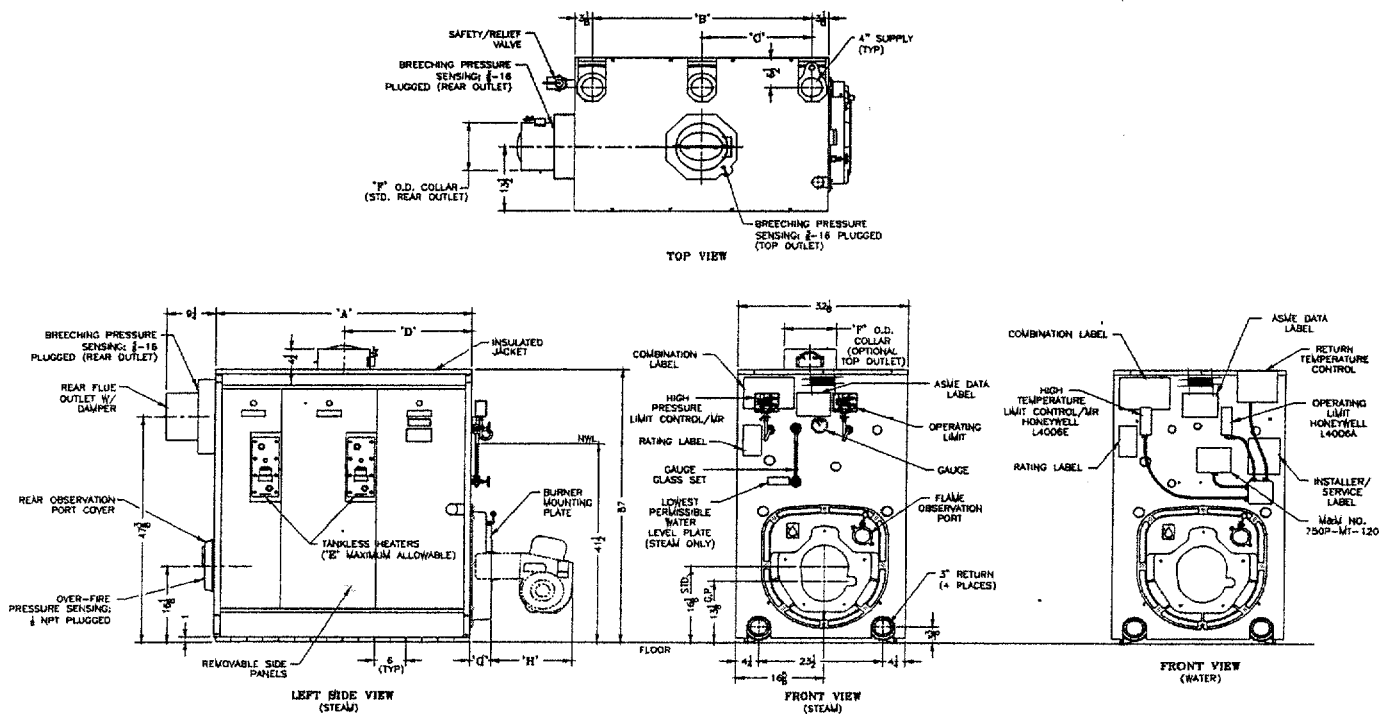
SUBMITTAL DATA

BOILER MODEL : (1 ea,) AV905A-WML

Ratings	
GROSS OUTPUT, BTU/HR. :	646,000
BOILER HORSE POWER, HP :	19.3
NET RATING, BTU/HR. :	562,000
WATER WORKING PRESSURE :	50 psi

Approval or Certificate	
I=B=R	
	X Burner Only)
A.S.M.E.	
SBI	
AGA	
OTHER	

Dimensions in Inches							
A	B	C	D	E	F	G	H
30-1/4	24	----	15-1/8	1	8	-----	-----



Recommended Rear Service Clearance			
Flue Outlet Size	Top Flue Outlet	Rear Flue Outlet	
		Combustible Surface	Non-Combustible Surface
7" Dia.	18"	37"	22"
8" Dia.		38"	23"
10" Dia.		40"	25"
12" Dia.		43"	28"

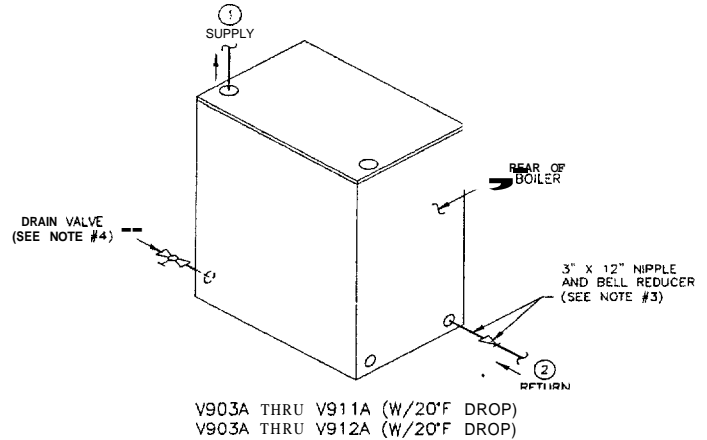
Top Outlet (Above)	6"
Rear Outlet (Above)	6"
Front	24"
Vent Connector	18"
Top Outlet (Rear)	6"
Rear Outlet (Rear)	18"
Sides	6"

- * **LEFT SIDE** - Provide a minimum clearance from the boiler jacket
- * **RIGHT SIDE** - Provide a minimum clearance from the boiler jacket of 12"
- * **TOP** - Provide a minimum clearance from the boiler jacket of 24".

Water Boiler:

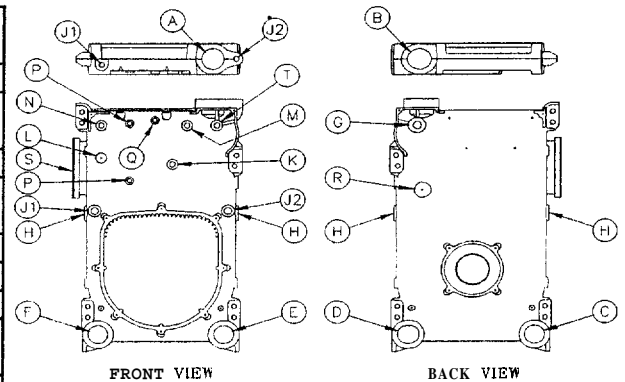
Piping Size in Inches	
SUPPLY	RETURN
2"	

- 1) All piping is schedule 40.
- 2) Pipe size listed are based on a 20°F differential (temperature drop).
Select ONE to match application.
- 3) When specified return piping size is less than 3". install 3' x 12" nipple and appropriate size bell reducer directly into boiler return tapping as shown.
- 4) Ball valve preferable, gate valve acceptable alternative (supplied by others).
Minimum valve size per ASME code: 3/4" NPT.



CONTROL TAPPINGS LOCATION

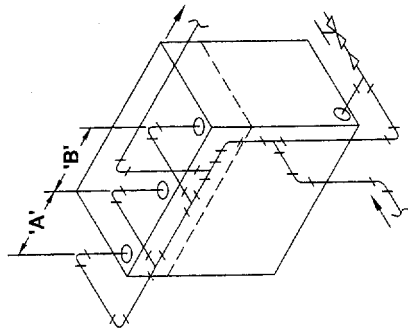
LOCATION	SIZE OF TAPPINGS	STEAM	WATER
A	4	Supply	Supply
B	4	Plug (903A thru 906A) Supply (907A thru 912A)	Plug
C	3	Blow Off Valve	Return
D	3	Return	Plug (903A thru 911A) Return (912A)
E	3	Plug	Blow Off / Drain Valve
F	3	Plug	Plug
G	1-1/2	Safety Valve	Relief Valve
H	1-1/2	Crown Inspection / Washout (Special Order Only)	Crown Inspection / Washout (Special Order Only)
J1	1	Primary Float LWCO	Primary Float LWCO
J2	1	Secondary Float LWCO (Special Order Only)	Secondary Float LWCO (Special Order Only)
K	3/4	Probe LWCO	Probe LWCO
L	3/4	Auxiliary Probe LWCO	Auxiliary Probe LWCO
M	3/4	Operating Pressure Limit Control	Operating Temperature Limit Control
N	3/4	High Pressure Limit Control Manual Reset	High Temperature Limit Control Manual Reset
P	1/2	Gauge Glass	Not Used. Plug
Q	1/2	Steam Gauge (bush to 114")	Temperature / Pressure Gauge
R	1-1/2	Indirect Water Heater Supply (Special Order Only)	—————
S	3/4	—————	Tankless Heater Coil
T	3/4	Firing Rate Pressure Control	Firing Rate Temperature Control



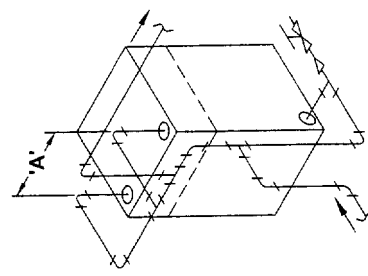
BOILER MODEL	PIPING SIZE					RISER SPACING				
	(1) RISER SIZE	(2) RETURN	(3) HEADER	(4) EQUALIZER BLOWOFF	(5)	'A'	'B'	'C'	'D'	'E'
V1104	(1) 4"	2"	4"	2 1/2"	1"	-	-	-	-	-
V1105	(1) 4"	2"	4"	2 1/2"	1"	-	-	-	-	-
V1106	(2) 4"	2 1/2"	6"	1"	3 1/2"	-	-	-	-	-
V1107	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	3 1/2"	-	-	-	-
V1108	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	4 3/8"	-	-	-	-
V1109	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	4 3/8"	-	-	-	-
V1110	(3) 4"	3"	8"	2 1/2"	1 1/2"	2 1/2"	3 3/8"	-	-	-
V1111	(3) 4"	3"	8"	4"	1 1/2"	3 7"	2 1/2"	-	-	-
V1112	(3) 4"	3"	8"	4"	1 1/2"	3 7"	3 3/8"	-	-	-
V1113	(3) 4"	3"	8"	4"	1 1/2"	3 7"	3 7"	-	-	-
V1114	(4) 4"	3"	8"	4"	1 1/2"	2 1/2"	2 1/2"	3 3/8"	-	-
V1115	(4) 4"	3"	8"	4"	1 1/2"	2 1/2"	2 1/2"	3 3/8"	-	-
V1116	(4) 4"	3"	8"	4"	1 1/2"	3 3/8"	3 3/8"	2 1/2"	-	-
V1117	(4) 4"	3"	8"	4"	1 1/2"	3 3/8"	3 3/8"	3 3/8"	-	-
V1118	(5) 4"	3"	8"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	2 1/2"	-
V1119	(5) 4"	3"	10"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	3 3/8"	-
V1120	(5) 4"	3"	10"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	3 3/8"	-
V1121	(5) 4"	3"	10"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	3 3/8"	-
V1122	(6) 4"	3"	10"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	3 3/8"	-
V1123	(6) 4"	3"	10"	4"	1 1/2"	3 3/8"	2 1/2"	2 1/2"	3 3/8"	-

NOTES:

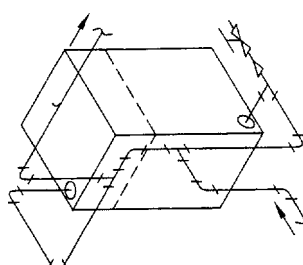
- All piping is schedule 40.
- To prevent condensate from being trapped in header, do not reduce equalizer elbow at header connection.
- Ball valve preferable, gate valve acceptable alternative (supplied by others).
 - Minimum valve size per ASME code is 1" NPT (V1104-1106).
 - 1-1/4" NPT (V1107-1112), 1-1/2" NPT (V1113-1123).
 - Increasing the valve size will improve the blowdown operation
 - In all cases, piping connecting blowoff valve to boiler shall be full size to the point of discharge.
- Header piping may be run over the top of boiler if space does not allow for piping arrangement shown. Increases service requirements will result, however.
- Supply from boiler header must be connected between the first riser and the header drip (or hartford loop). Do not connect supply between risers or opposite end of boiler header.



V1104 AND V1113

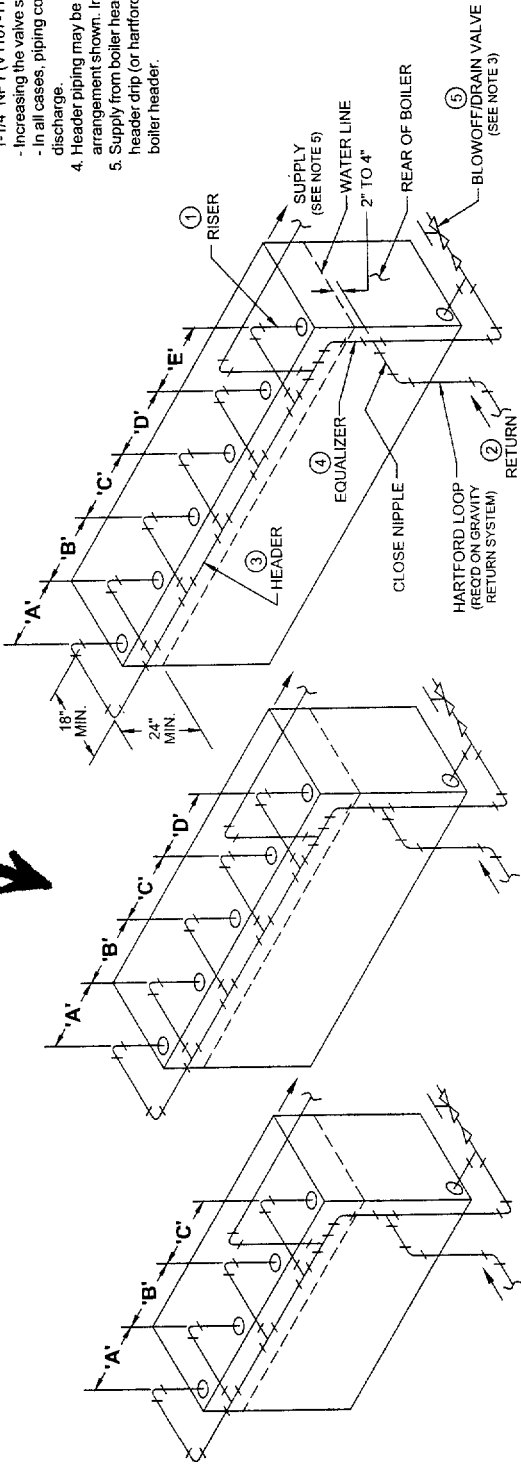


V1106 AND V1109



V1114 THRU V1117

(2)

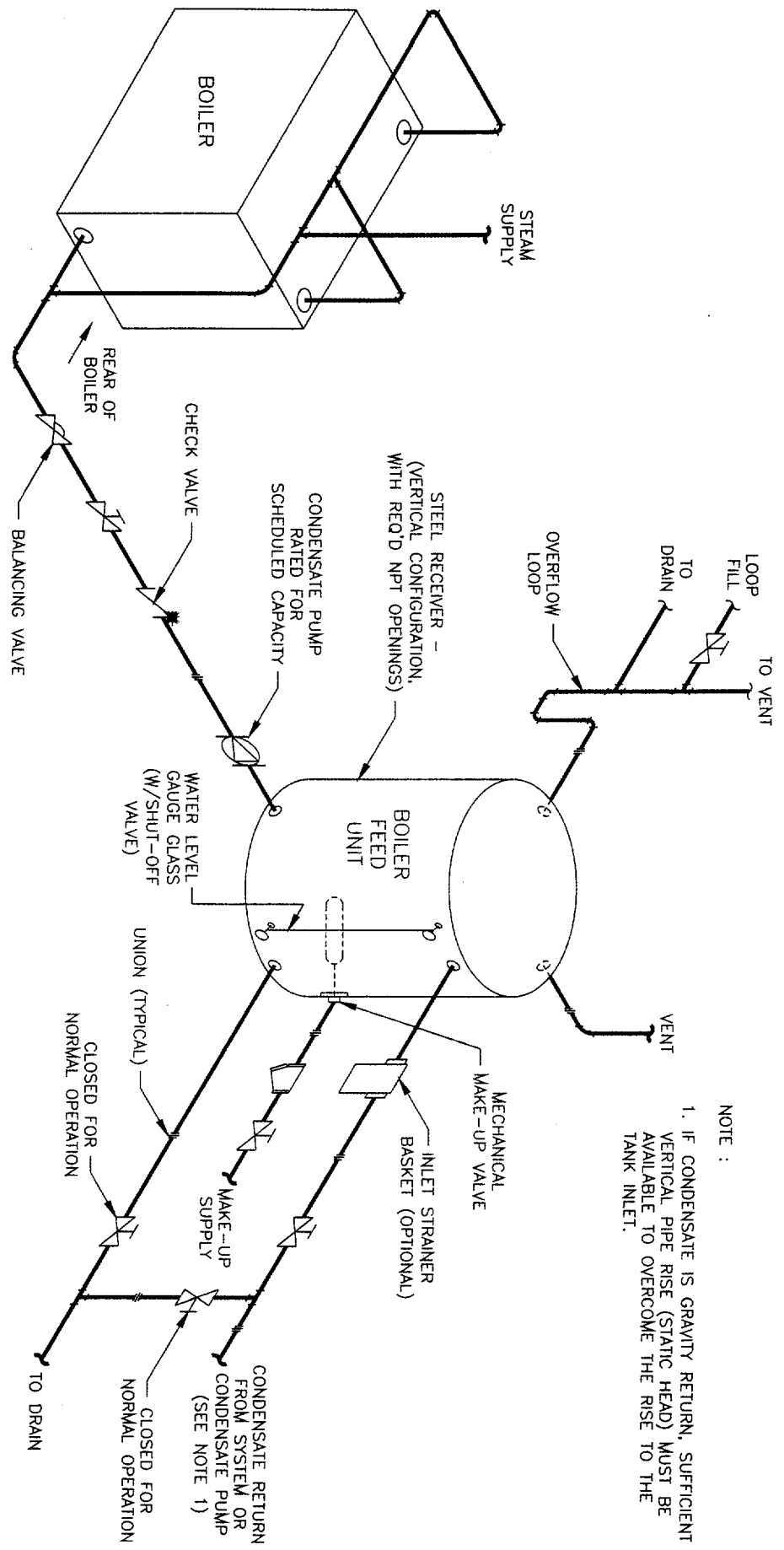


V1118 THRU V1121

V1122 AND V1123

V1114 THRU V1117

Figure 39: Minimum Piping Requirements V11 Series Steam Boilers - Gravity Return



NOTE :
 1. IF CONDENSATE IS GRAVITY RETURN, SUFFICIENT VERTICAL PIPE RISE (STATIC HEAD) MUST BE AVAILABLE TO OVERCOME THE RISE TO THE TANK INLET.

Figure 40: Typical Steam Piping Arrangement for Boilers with Pumped Condensate Return and Boiler Feed Unit