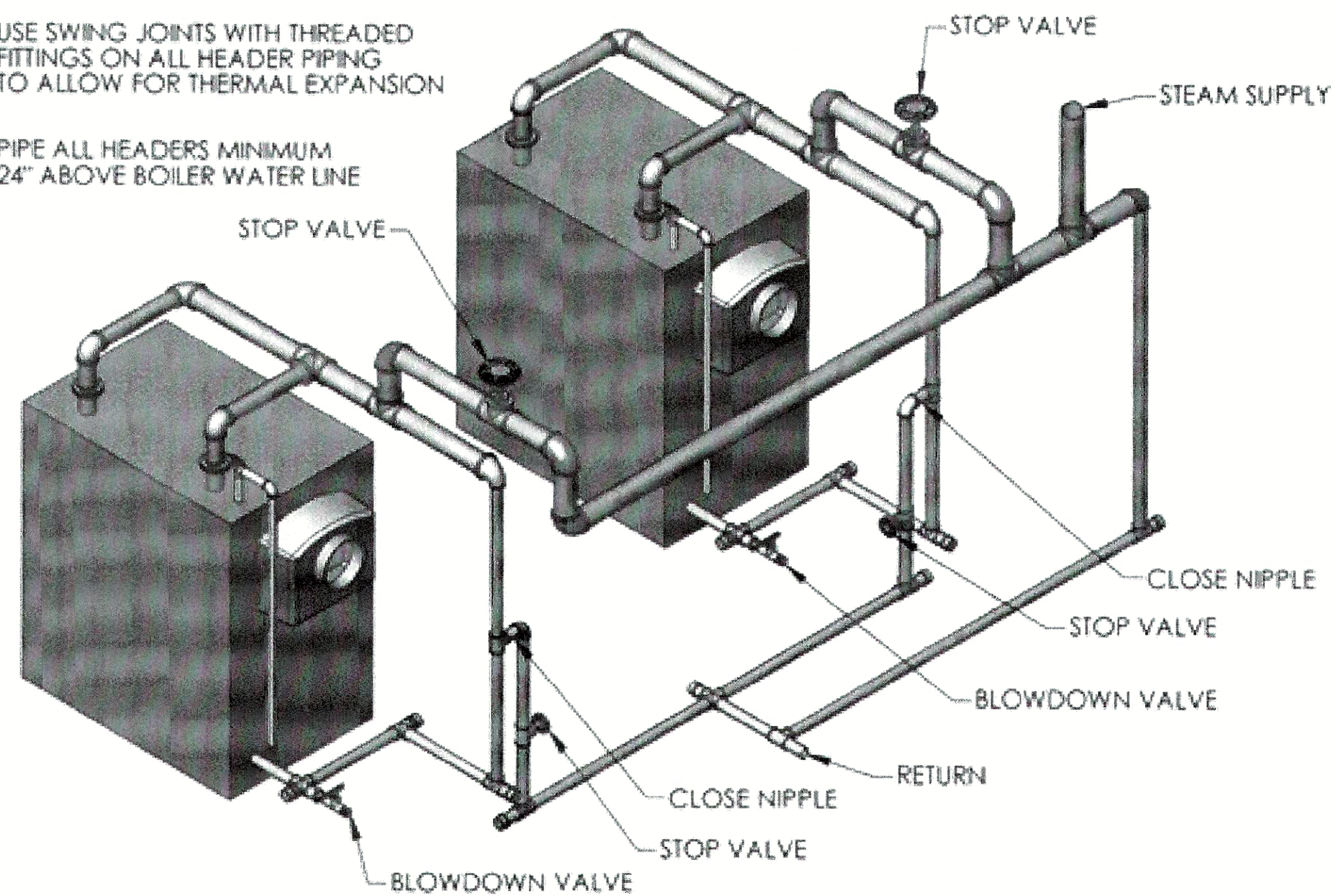


USE SWING JOINTS WITH THREADED FITTINGS ON ALL HEADER PIPING TO ALLOW FOR THERMAL EXPANSION

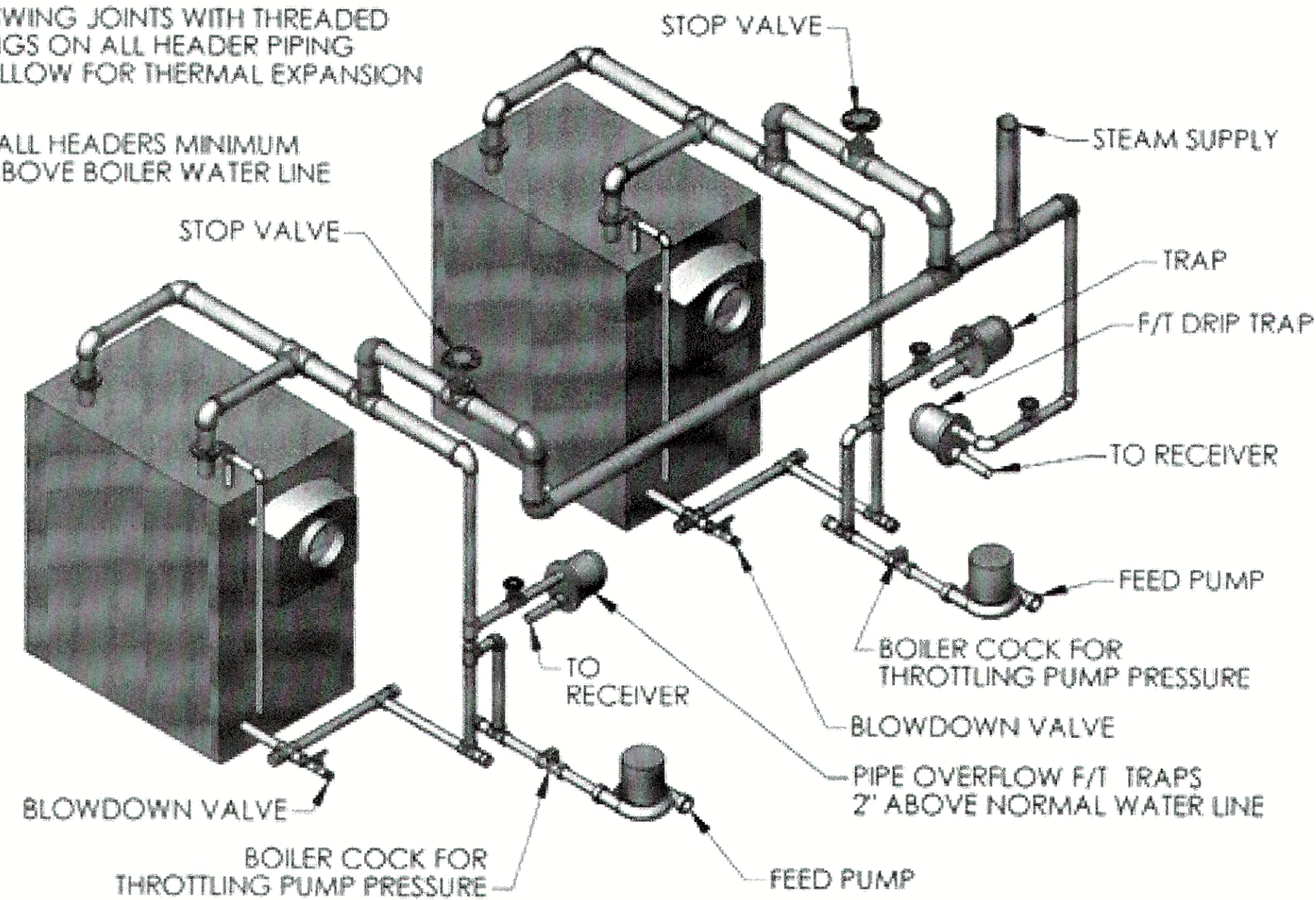
PIPE ALL HEADERS MINIMUM 24" ABOVE BOILER WATER LINE



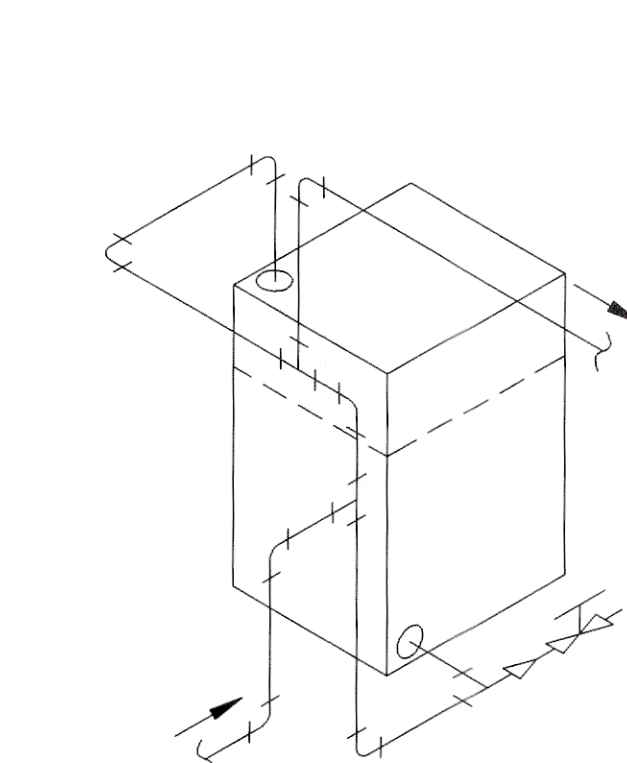
TYPICAL MULTIPLE STAGED STEAM BOILER W/ GRAVITY RETURN
N.T.S.

USE SWING JOINTS WITH THREADED FITTINGS ON ALL HEADER PIPING TO ALLOW FOR THERMAL EXPANSION

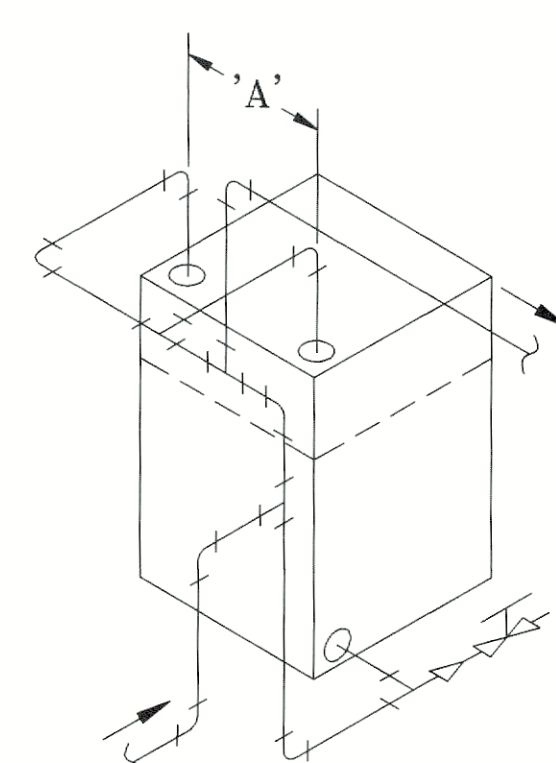
PIPE ALL HEADERS MINIMUM 24" ABOVE BOILER WATER LINE



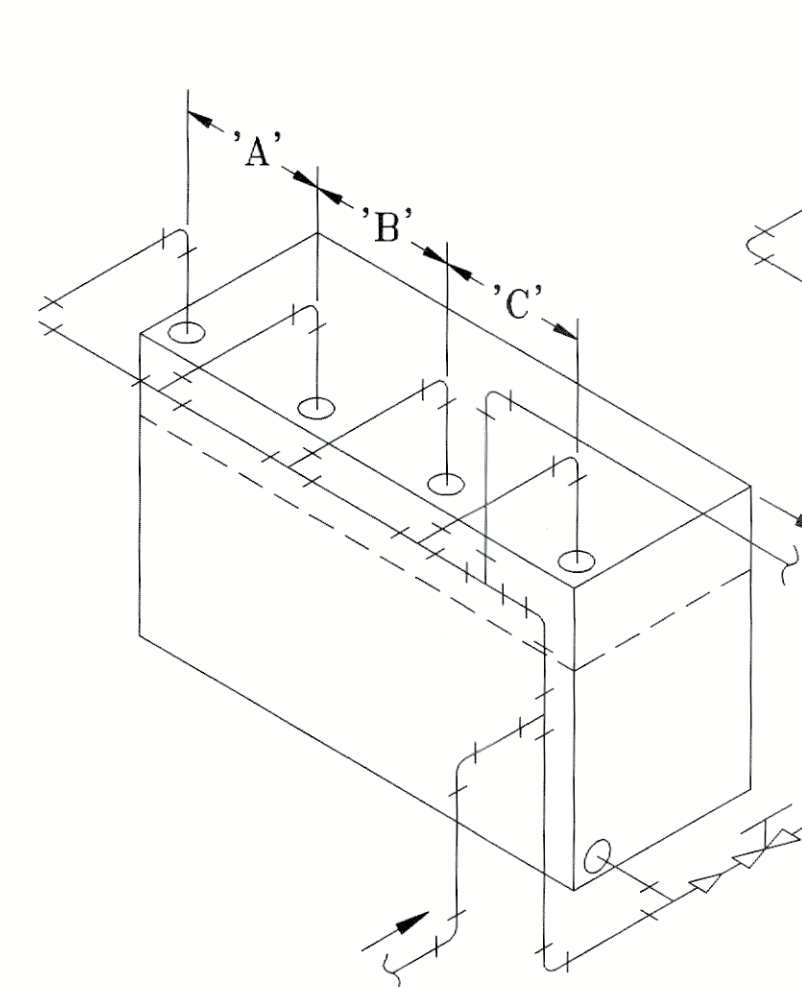
TYPICAL MULTIPLE STAGED STEAM BOILER W/ PUMPED RETURN
N.T.S.



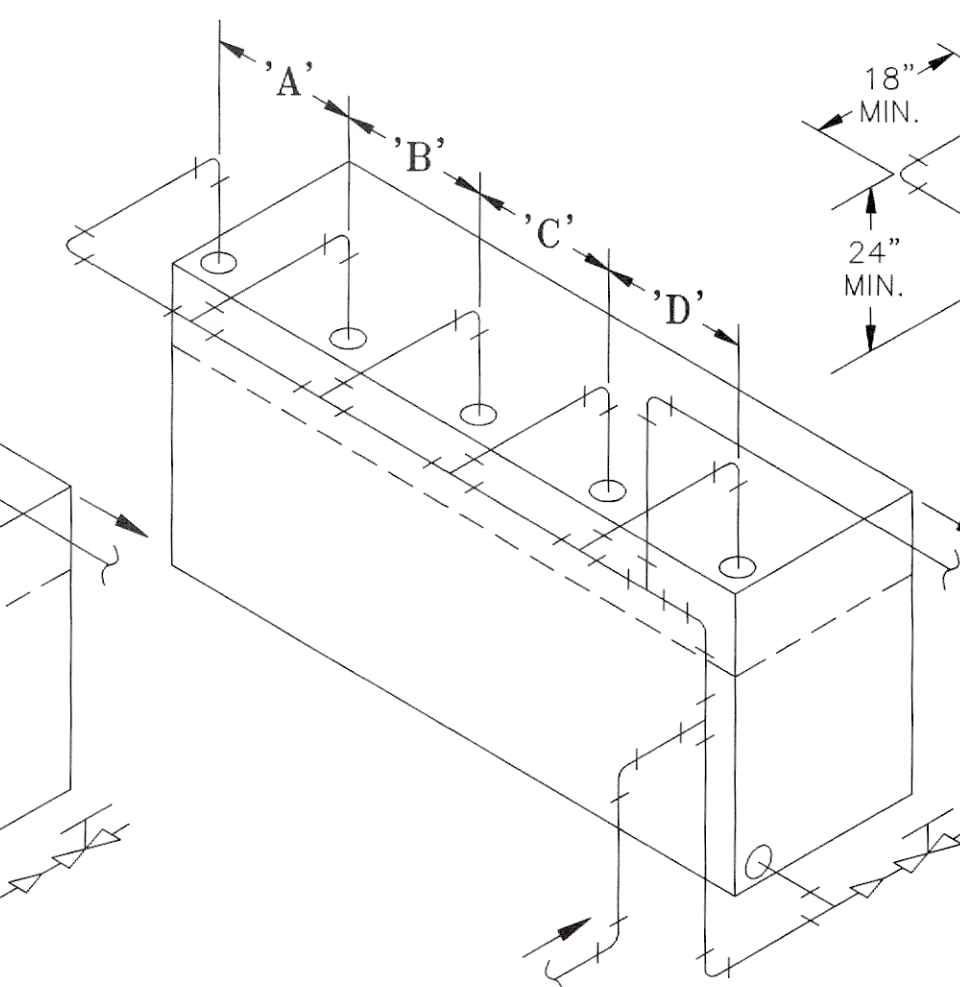
V1104H AND V1105H



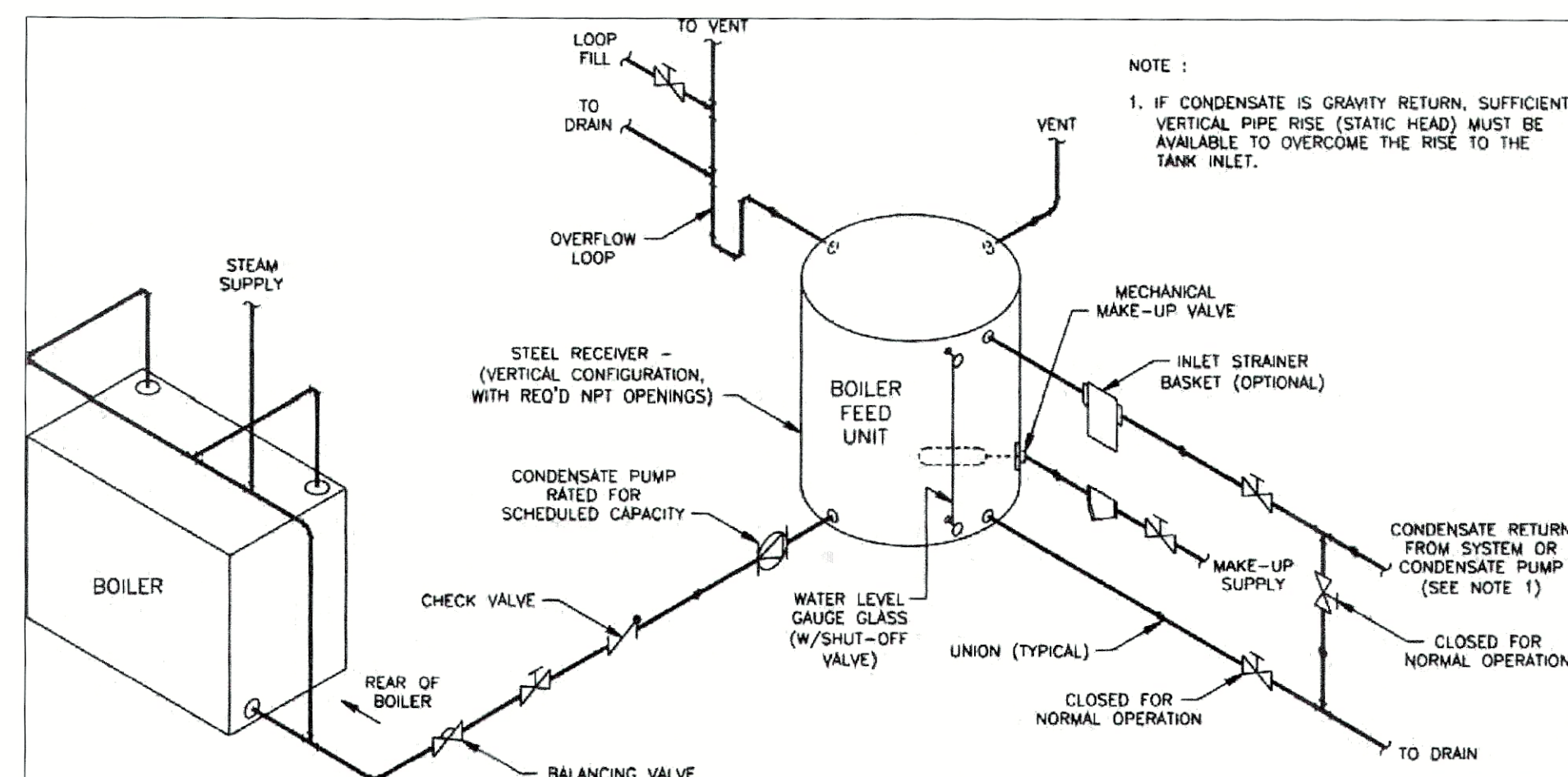
V1106H THRU V1109H



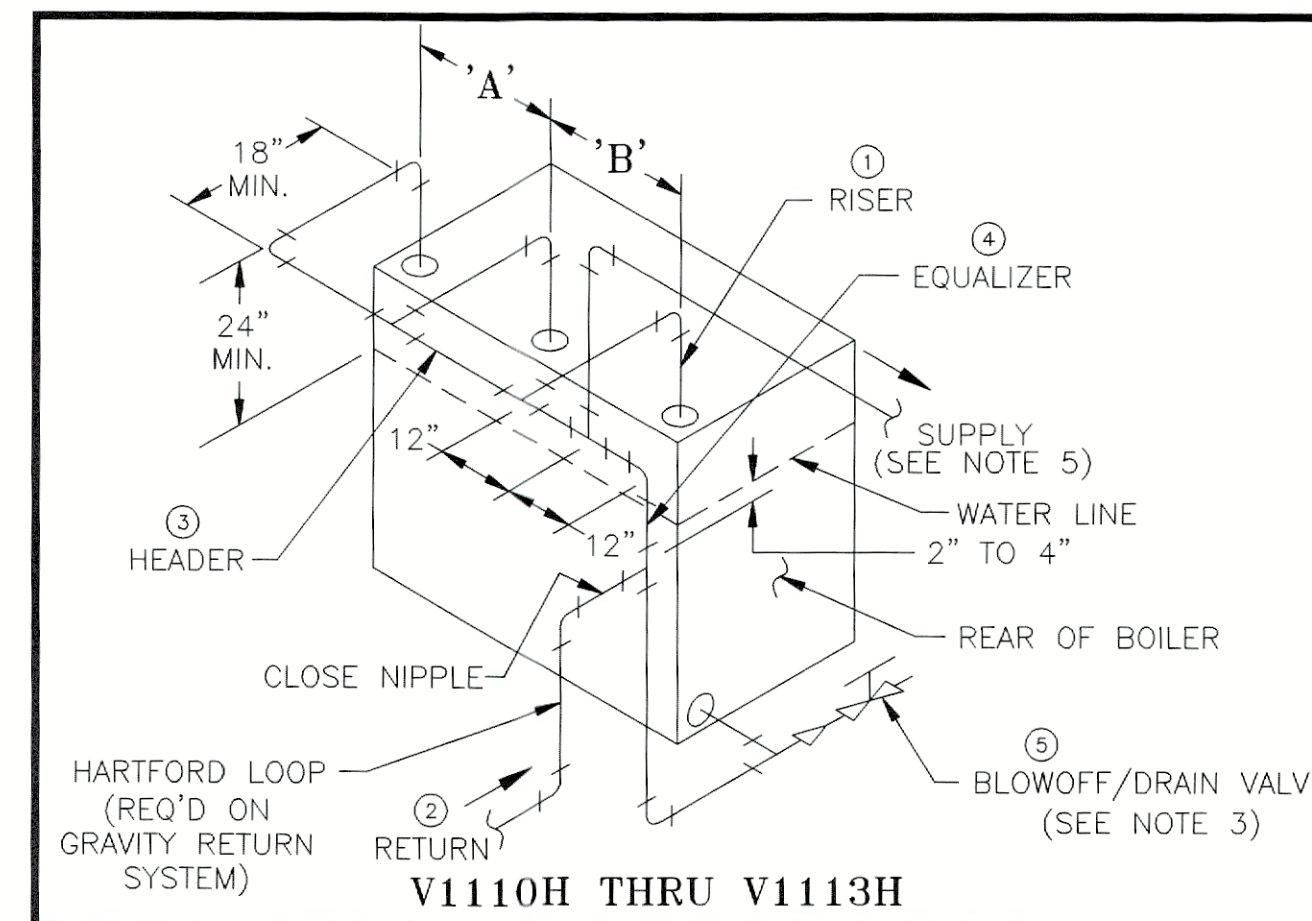
V1114H THRU V1117H



V1118H THRU V1121H



TYPICAL STEAM PIPING ARRANGEMENT FOR BOILERS W/ PUMPED CONDENSATE RETURN AND BOILER FEED UNIT
N.T.S.



V1110H THRU V1113H

BOILER MODEL	PIPING SIZE					RISER SPACING				
	(1) RISER (QTY)	(2) RETURN	(3) HEADER	(4) EQUALIZER	(5) BLOWOFF	'A'	'B'	'C'	'D'	'E'
V1104H	(1) 4"	2"	4"	2 1/2"	1"	-	-	-	-	-
V1105H	(1) 4"	2"	4"	2 1/2"	1"	-	-	-	-	-
V1106H	(2) 4"	2 1/2"	6"	2 1/2"	1"	31 1/2"	-	-	-	-
V1107H	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	37 1/2"	-	-	-	-
V1108H	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	43 1/2"	-	-	-	-
V1109H	(2) 4"	2 1/2"	6"	2 1/2"	1 1/2"	49 1/2"	-	-	-	-
V1110H	(3) 4"	2 1/2"	6"	2 1/2"	1 1/2"	24 1/2"	30 1/2"	-	-	-
V1111H	(3) 4"	3"	8"	4"	1 1/2"	37"	24 1/2"	-	-	-
V1112H	(3) 4"	3"	8"	4"	1 1/2"	37"	30 1/2"	-	-	-
V1113H	(3) 4"	3"	8"	4"	1 1/2"	37"	37"	-	-	-
V1114H	(4) 4"	3"	8"	4"	1 1/2"	24 1/2"	24 1/2"	30 1/2"	-	-
V1115H	(4) 4"	3"	8"	4"	1 1/2"	24 1/2"	24 1/2"	37"	-	-
V1116H	(4) 4"	3"	8"	4"	1 1/2"	30 1/2"	30 1/2"	24 1/2"	-	-
V1117H	(4) 4"	3"	8"	4"	1 1/2"	30 1/2"	30 1/2"	30 1/2"	-	-
V1118H	(5) 4"	3"	8"	4"	1 1/2"	30 1/2"	24 1/2"	24 1/2"	24 1/2"	-
V1119H	(5) 4"	3"	10"	4"	1 1/2"	30 1/2"	24 1/2"	24 1/2"	30 1/2"	-
V1120H	(5) 4"	3"	10"	4"	1 1/2"	30 1/2"	24 1/2"	30 1/2"	24 1/2"	-
V1121H	(5) 4"	3"	10"	4"	1 1/2"	30 1/2"	24 1/2"	30 1/2"	30 1/2"	-
V1122H	(6) 4"	3"	10"	4"	1 1/2"	30 1/2"	24 1/2"	24 1/2"	24 1/2"	24 1/2"
V1123H	(6) 4"	3"	10"	4"	1 1/2"	30 1/2"	24 1/2"	24 1/2"	24 1/2"	30 1/2"

NOTES:

- ALL PIPING IS SCHEDULE 40.
- TO PREVENT CONDENSATE FROM BEING TRAPPED IN HEADER, DO NOT REDUCE EQUALIZER ELBOW AT HEADER CONNECTION.
- BALL VALVE PREFERRED, GATE VALVE ACCEPTABLE ALTERNATIVE (SUPPLIED BY OTHERS).
 - MINIMUM VALVE SIZE PER ASME CODE: 1" NPT (V1104H-1106H); 1 1/2" NPT (V1107H-1112H); 1 1/2" NPT (V1113H-1123H).
 - 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. INCREASED SERVICE REQUIREMENTS WILL RESULT HOWEVER.
- SUPPLY FROM BOILER HEADER MUST BE CONNECTED BETWEEN THE FIRST BOILER RISER AND THE HEADER DRAIN (OR HARTFORD LOOP). DO NOT CONNECT SUPPLY BETWEEN RISERS OR OPPOSITE END OF BOILER HEADER.



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NY 10573

Job Number:
-

Job Start Date:
6/13/22

Issue:	Date:
REVIEW	6/16/22
PERMIT	7/15/22
ISSUED FOR BID	9/1/22

Drawn By: Checked By:
D.M.D. J.E.Q.

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M-201

MINIMUM PIPING REQUIREMENTS V11H SERIES STEAM BOILERS - GRAVITY RETURN
N.T.S.