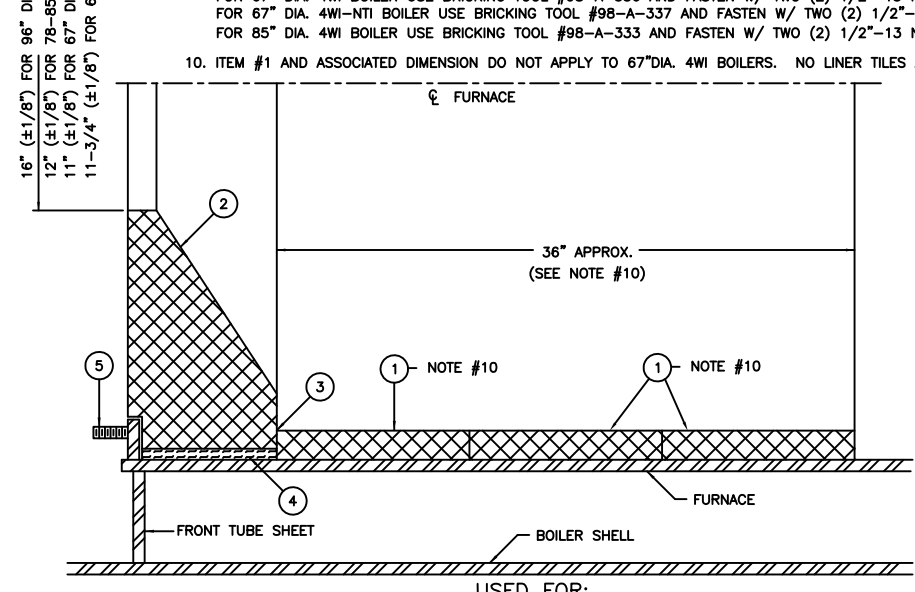
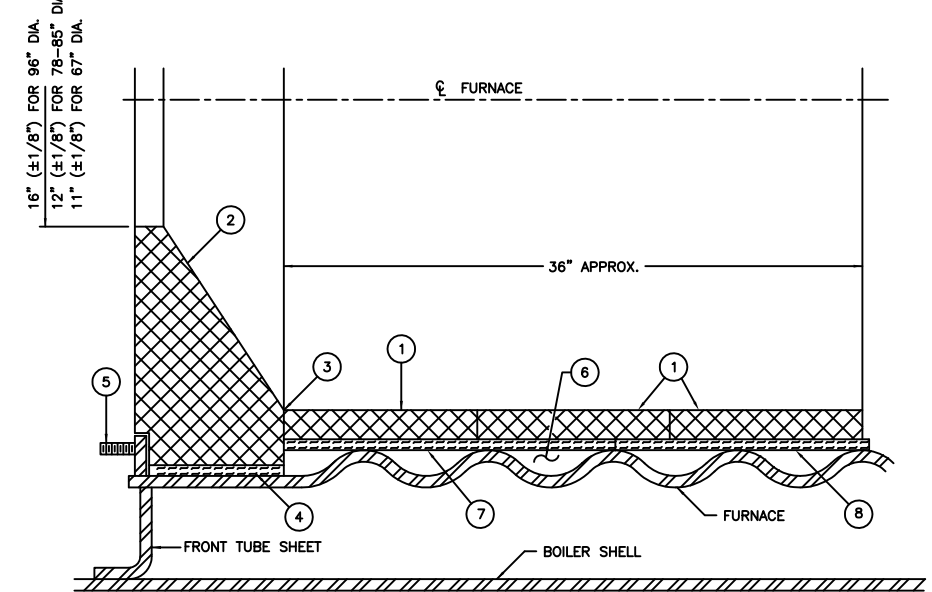


INSTALLATION PROCEDURE

NOTE: THE FOLLOWING PROCEDURE IS TYPICAL FOR ALL STD. 67"-85" 4WI, 78"-96"CB/CBW, & 78"LE BOILERS W/THE EXCEPTION OF ITEM #1 WHICH DOES NOT APPLY TO 67"4WI, AND ITEMS #6,7, & 8 WHICH ARE NOT USED FOR ANY PLAIN FURNACE BOILERS. DISREGARD ANY REFERENCE TO THESE ITEMS WHEN WORKING W/PLAIN FURNACE BOILERS.

- INSTALL STUDS, BRICKING TOOL, CERAFELT, BOTTOM AND TOP ARCH BRICKS AS SHOWN ON DETAIL "A" TO CHECK FIT UP. IF INTERFERENCE IS PRESENT @ ARCH BRICK I.D., MEASURE THIS DISTANCE AND TRIM I.D. OF ALL BRICKS TYPICAL. NOTE: ARCH BRICKS MUST BE TRIMMED ON EXCESSIVE PRESSURES TO MAINTAIN BRICK I.D. (11" FOR 67"DIA. 12" FOR 78"DIA. AND 16" FOR 96"DIA).
- INSTALL BOTTOM HALF OF ARCH BRICKS AS SHOWN ON DETAIL "B".
- MIX VEE BLOCK TO A MORTAR-LIKE CONSISTENCY (PER MANUFACTURERS INSTRUCTIONS) AND PACK FRONT (3) VALLEYS OF FURNACE CORRUGATIONS W/ MIXTURE FLUSH W/ FURNACE I.D. UP TO 3 AND 9 O'CLOCK CENTERLINE OF FURNACE. INSTALL BOTH PIECES OF ITEM #7 CERAFELT (TO INSULATE TILE FROM CORRUGATION) AND BEGIN BOTTOM HALF OF FIRST ROW OF TILES AS SHOWN ON DETAIL "C" (SEE NOTE #7 AND 8).
- TO BEGIN TOP HALF OF ARCH BRICKS AND TILES, MEASURE OFF UPPER HALF OF FURNACE ARCH BRICKS AND TILES W/ TEMPLATES, MARK W/ CHALK, AND DETERMINE IF A CUT BRICK OR CUT TILE IS NEEDED (SEE DETAIL "B"). IF CUT BRICK IS REQUIRED, LOCATE BELOW 2 AND 10 O'CLOCK POSITIONS (SEE NOTE #4). IF BRICK IS CUT, ANGLE OF CUT SURFACE SHOULD BE THE SAME AS ORIGINAL BRICK. IF CUT BRICK OR TILE MEASURES LESS THAN 1/2 FULL WIDTH, CUT TWO (2) PIECES (SEE NOTE #1).
- INSTALL BRICKING TOOL AS SHOWN ON DETAIL "A" AND CONTINUE INSTALLING UPPER HALF BY ALTERNATING ONE (1) ARCH BRICK AND ONE (1) CORRESPONDING TILE BEHIND BRICK TYPICAL (SEE NOTES #5, 6, AND 9).
- FOR THE LAST TWO (2) ROWS OF TILES, PACK ALL REMAINING VALLEYS OF FURNACE CORRUGATIONS (MEASURE 36" FROM INSIDE SURFACE OF ARCH BRICKS) W/ VEE BLOCK MIXTURE FLUSH W/ FURNACE I.D. UP TO 3 AND 9 O'CLOCK CENTERLINE OF FURNACE.
- INSTALL BOTH PIECES OF ITEM #8 CERAFELT AND CONTINUE LAYING FURNACE TILES TO COMPLETE THE LAST TWO (2) ROWS (SEE NOTE #7).
- AFTER JOINT CEMENT HARDENS (2 HOURS APPROX.), REMOVE BRICKING TOOL, WOODEN TILE SUPPORTS, AND DISCARD CERAFELT SHIMS.

- NOTES:**
- NO CERAFELT, CUT BRICKS, OR CUT TILES TO BE INSTALLED IN UPPER 120° QUADRANT OF FURNACE, AS SHOWN ON DETAILS "B" AND "C".
 - PACK ALL BRICKS AND TILES TIGHTLY W/ MALLET AND REMOVE EXCESS CEMENT— 1/16" TYPICAL JOINT/ 1/8" MAX.
 - NO CEMENT APPLIED BETWEEN CERAFELT AND BRICKS, TILES, OR FURNACE. ONLY APPLIED BETWEEN BRICKS AND TILES.
 - DO NOT COVER FURNACE WELD SEAM W/ CERAFELT. CUT AND SPACE TO SUIT AS SHOWN ON DETAILS "B" AND "C".
 - SUPPORT UPPER TILES W/ WOODEN BOARDS TO SUIT @ ASSEMBLY. TWO (2) BOARDS PER TILE AS SHOWN ON DETAIL "C"— FOR 96" DIA. USE 3/4" X 1-1/2" X 38" LG. APPROXIMATE. FOR 78" & 85" DIA. USE 3/4" X 1-1/2" X 28" LG. APPROXIMATE. FOR 67" 4WI DIA. USE 3/4" X 1-1/2" X 25" LG. APPROXIMATE.
 - TO INSURE TIGHT FIT AND MAXIMUM I.D. OF ARCH BRICKS, CUT A 3" SQ. PIECE OF SCRAP CERAFELT AND USE AS A SHIM BETWEEN BRICKING TOOL O.D. AND I.D. OF UPPER HALF OF BRICKS TYPICAL (IF NECESSARY).
 - STAGGER CEMENTED JOINTS (SEAMS) BETWEEN ALL ARCH BRICKS AND TILES.
 - AFTER EACH HALF COURSE OF BRICKS OR TILES IS INSTALLED, CLEAN UP EXCESSIVE CEMENT AND FILL OPEN JOINT AREAS WHERE NECESSARY.
 - FOR 78" DIA. BOILER USE BRICKING TOOL #98-D-280 AND FASTEN W/ TWO (2) 1/2"-13 NUTS. FOR 96" DIA. BOILER USE BRICKING TOOL #98-D-279 AND FASTEN W/ TWO (2) 5/8"-11 NUTS. FOR 67" DIA. 4WI BOILER USE BRICKING TOOL #98-A-336 AND FASTEN W/ TWO (2) 1/2"-13 NUTS. FOR 78" DIA. 4WI-NTI BOILER USE BRICKING TOOL #98-A-337 AND FASTEN W/ TWO (2) 1/2"-13 NUTS. FOR 85" DIA. 4WI BOILER USE BRICKING TOOL #98-A-333 AND FASTEN W/ TWO (2) 1/2"-13 NUTS.
 - ITEM #1 AND ASSOCIATED DIMENSION DO NOT APPLY TO 67"DIA. 4WI BOILERS. NO LINER TILES ARE REQUIRED.



USED FOR:

CB/LE/CBR 300-350HP 125#	4WI 400HP 300#
4WI 300-400HP 125#	CB 500-800HP 150#
CB 500-800HP 125#	CB 700-800HP 200#
CB/LE/CBR 350HP 150#	CB 400-800HP 250#
4WI 400HP 150#	CB 250-800HP 300#
4WI 400HP 200#	

USED FOR:

4WI 150-200 0-300#	4WI 350HP 150#
CB/LE/4WI/CBR 250-350HP 15/30#	CB/LE/4WI/CBR 250-350HP 200#
CB 400-800HP 15/30#	CB/4WI 400HP 200#
4WI 400HP 15/30#	CB 500-600HP 200#
CB/LE/4WI/CBR 250HP 125#	CB/LLE/4WI/CBR 250-350HP 250#
4WI 400HP 150# HW	4WI 400HP 250#
CB 400HP 125#	4WI 250-350HP 300#
CB/LE/4WI/CBR 250-300HP 150#	

STANDARD CORRUGATED FURNACE

STANDARD PLAIN FURNACE

ITEM	QTY	PART No.	DESCRIPTION	BASIC BILL OF MATERIAL	
				USED ON	
				H.P.	PRESSURE
33	094-00204-000		TILE - 34" O.D. FURNACE (CORRUGATED)	CB/LE/4WI/CBR 300	125#
				CB/LE/CBR 350	150#
36			TILE - 34" O.D. FURNACE (PLAIN)	4WI 250-300	0-300#
				CB/LE/4WI/CBR 250-300	15/30#
33	094-00746-000		TILE - 37" O.D. FURNACE (CORRUGATED)	4WI 350-400	125#
				4WI 400HP	200#
36			TILE - 37" O.D. FURNACE (PLAIN)	4WI 350	150#
				4WI 350-400	250#
48	094-00205-000		TILE - 45" O.D. FURNACE (CORRUGATED)	CB 400-800	15/30#
				CB 400	200#
51	094-00205-000		TILE - 45" O.D. FURNACE (PLAIN)	CB 400-800	15/30#
				CB 400	200#
24	094-00767-000		REFRACTORY - ARCH BRICK	4WI-NTI 150-200	15#-150#
				CB/LE 250-350	15#-30#
25	094-00343-000		REFRACTORY - ARCH BRICK	4WI 250-300	15#-30#
				CBW 250-400	15#-30#
29	094-00643-000		REFRACTORY - ARCH BRICK	4WI 350-400	15#-300#
35	094-00344-000		REFRACTORY - ARCH BRICK	CB 400-800	15#-30#
				CBW 500-800	15#-30#
25	094-00752-000		REFRACTORY - ARCH BRICK	4WI 150-200	15#-300#
25	094-00449-000		REFRACTORY - ARCH BRICK	CB/LE & CBR 250-350	125#-300#
				4WI 250-300	125#-250#
35	094-00450-000		REFRACTORY - ARCH BRICK	CB 400-800	125#-250#
				CBW 500-800	125#-250#
10 LBS.	872-00390-000		CEMENT - JOINT MORTAR	CB & LE 250-350	ALL
				CB 400-800	
25 LBS.	872-00390-000		CEMENT - JOINT MORTAR	CBW 500-800	
4	872-00518-000		SIZED INSUL 1/4" X 7-1/8" X 96" LG.	CB & CBW 250-800	ALL
				LE 250-350	
12	841-01736-000		STUD, 1/2"-13 UNC X 2" LG.	CB & LE 250-350	ALL
				CBW 250-400	
12	841-01884-000		STUD, 5/8"-11 UNC X 2-1/4" LG.	CB 400-800	ALL
				CBW 500-800	
15 LBS.	872-00162-000		REFRACTORY - VEE BLOCK MIX	CB/LE/CBR 300-350	125#
				4WI 300HP-400HP	125#
30 LBS.				CB/LE/CBR 350	150#
				4WI 400HP	200#
7	872-00518-000		SIZED INSUL 1/4" X 12" X 96" LG.	4WI 400HP	300#
				CB 500-800	125#
8	872-00518-000		SIZED INSUL 1/4" X 24" X 96" LG.	CB 500-800	150#
				CB 700-800	200#
146 00102				CB 400-800	250#
				CB 250-800	300#

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SCALE: N.T.S. DATE: 04/17/96 DRAWN: D.KLEIST

CleaverBrooks

SHT 01 OF 02 SIZE: D

NOTE: FOR OPTIONAL CORRUGATED FURNACES SEE SHEET 2 OF 2.

FURNACE LINER/BRICKING, STANDARD 78"-96"CB/CBW, 78"LE, 67"-85"4WI,67"CBR

DRWG. NO. 146 00102AFT 16