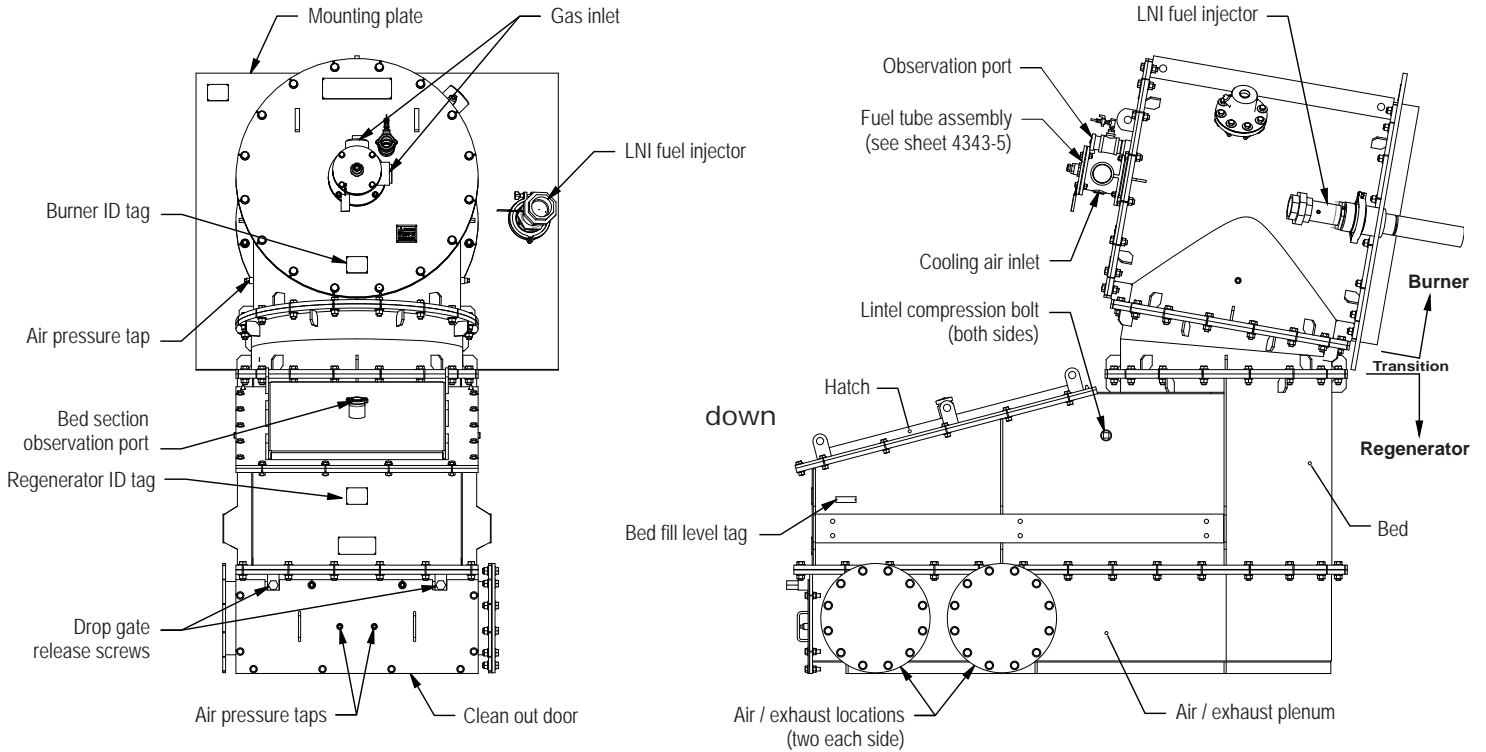
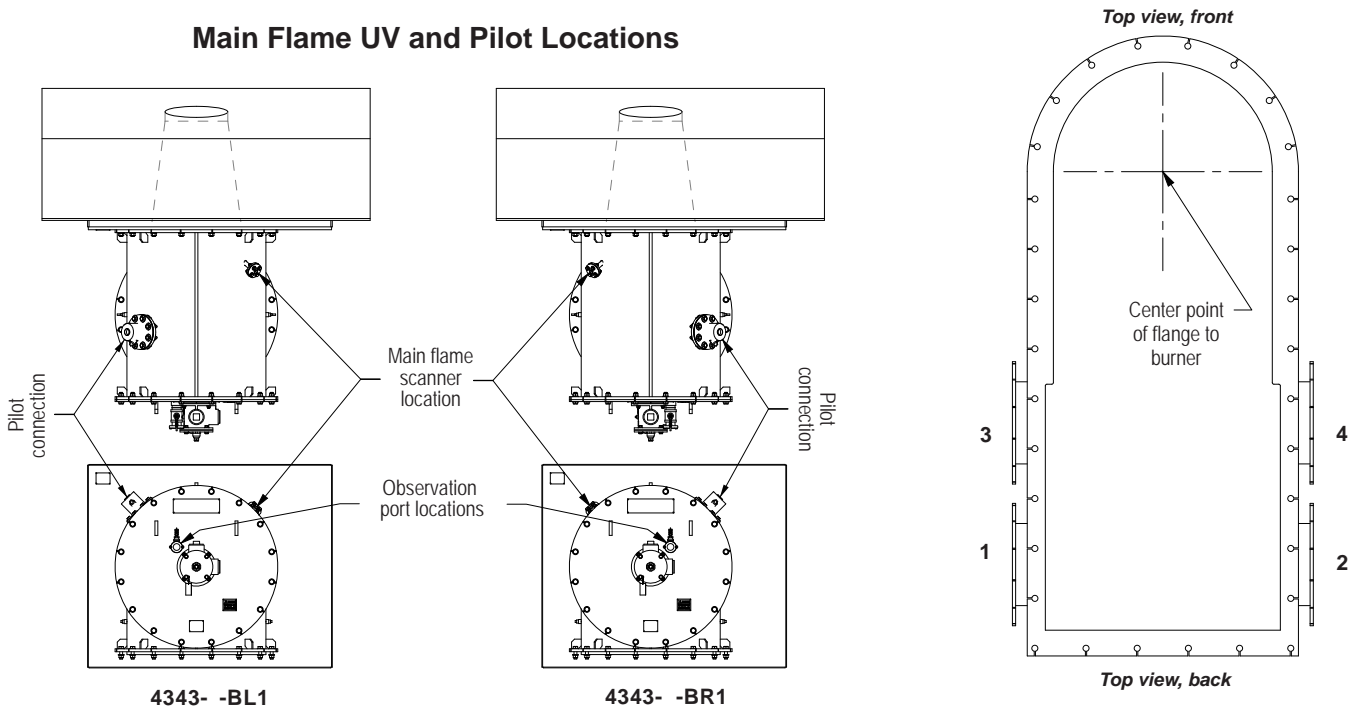


**Component Identification**



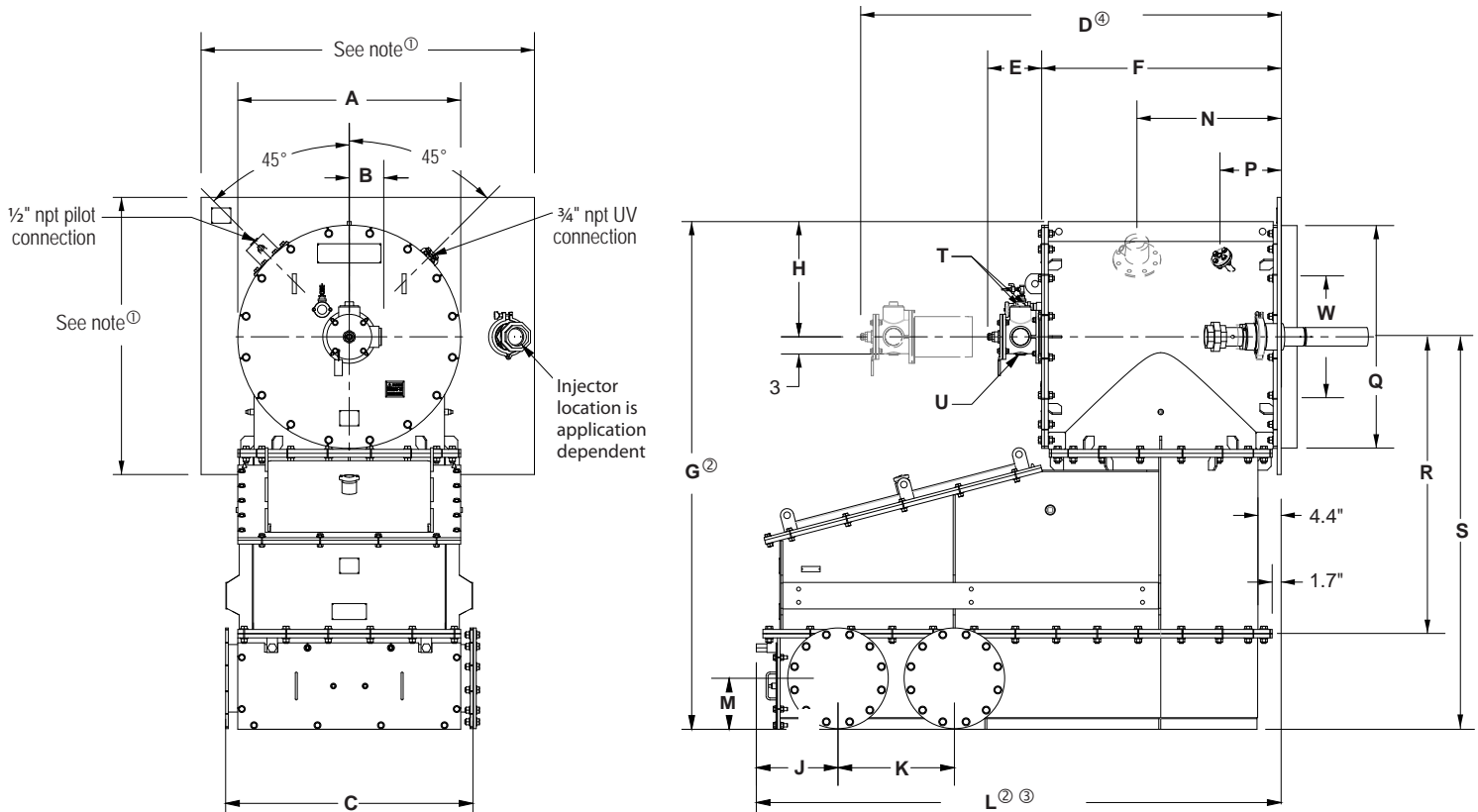
**Air and Exhaust Connection Locations**



Pilot can be located on either the left or right side of the burner. Specifying pilot location automatically determines flame scanner and observation port locations.

As shipped, locations 2 and 4 have blind flanges installed. These can be relocated in the field so that any connection combination is available for ease of piping.

### Straight Firing Arrangement



For areas requiring clearance and access, refer to page 4.

### Burner and Regenerator Dimensions

(rounded to the nearest inch)

Burner Designation	A	B	C	D <sup>④</sup>	E	F	G <sup>②</sup>	H	J	K	L <sup>②③</sup>	M	N	P	Q	R	S	W
4343-7	24	4	29	49	9	26	64	12	12	10	46	7	16	6	18	39	52	7
4343-8-A	26	4	31	52	9	28	66	13	13	12	48	7	17	6	20	40	53	9
4343-8-B	30	4	35	55	9	32	70	15	13	12	52	7	20	7	24	43	55	11
4343-9	34	6	39	61	10	37	77	17	14	18	62	7	22	8	28	46	60	15
4343-10	38	6	43	65	10	41	86	19	15	18	78	8	25	10	32	51	67	19
4343-12-A	38	6	43	65	10	41	90	19	17	20	90	9	25	10	32	53	71	19
4343-12-B	42	6	47	69	10	45	95	21	17	22	102	9	27	11	36	56	74	23

DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

**NOTES:** Dimensions are rounded to the nearest inch and are for initial layout and clearance purposes. Contact FivesNA for exact dimensions.

- ① Mounting plate dimensions change with furnace wall thickness and injector placement.
- ② See Page 3 for dimensions "G", "L", and "S" of 7 1/2°, 10° and 15° arrangements.
- ③ Dimension "L" is from the back of the regenerator to the mating surfaces of the burner and face of mounting plate.
- ④ Clearance dimension necessary to remove fuel tube.

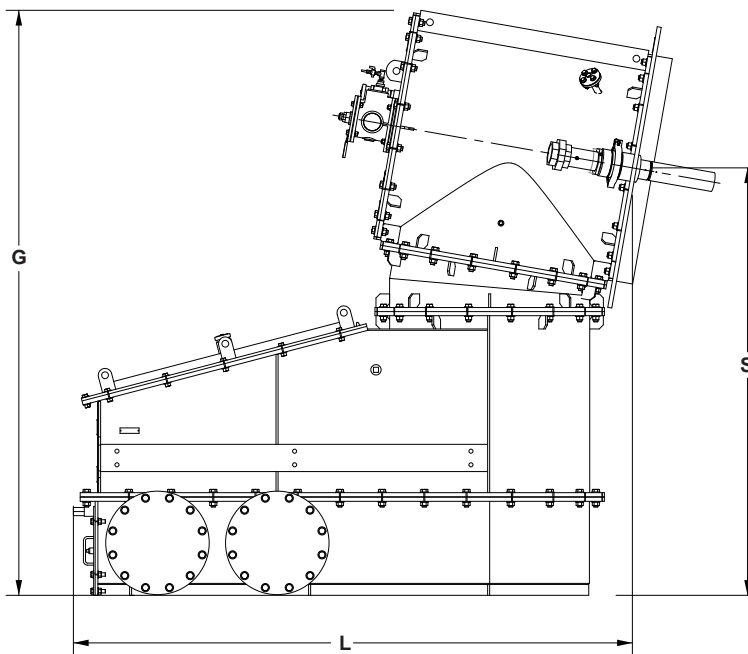
### Piping Connections

Burner Designation	T	U	Air/Exhaust
	Gas	Cooling Air	Four locations, two with a blind flange
4343-7	2" npt	1 1/4" npt	4" ANSI flange, 9" OD x 3/8" thick with (8) 3/4" diameter holes equally spaced on 7 1/2" BC
4343-8-A	2" npt	1 1/4" npt	6" ANSI flange, 11" OD x 1/2" thick with (8) 7/8" diameter holes equally spaced on 9 1/2" BC
4343-8-B	2" npt	1 1/4" npt	6" ANSI flange, 11" OD x 1/2" thick with (8) 7/8" diameter holes equally spaced on 9 1/2" BC
4343-9	3" npt	1 1/2" npt	8" ANSI flange, 13 1/2" OD x 1/2" thick with (8) 7/8" diameter holes equally spaced on 11 3/4" BC
4343-10	3" npt	1 1/2" npt	10" ANSI flange, 16" OD x 1/2" thick with (12) 1" diameter holes equally spaced on 14 1/4" BC
4343-12-A	3" npt	1 1/2" npt	12" ANSI flange, 19" OD x 1/2" thick with (12) 1" diameter holes equally spaced on 17" BC
4343-12-B	3" npt	1 1/2" npt	12" ANSI flange, 19" OD x 1/2" thick with (12) 1" diameter holes equally spaced on 17" BC

Pilot connection 1 1/2" npt. UV (main flame) 3/4" npt.

### Angled Arrangement

Firing can be angled by insertion of a transition spool (either 7½°, 10° or 15°) between the burner and regenerator.



**Burner and Regenerator Dimensions, inches**

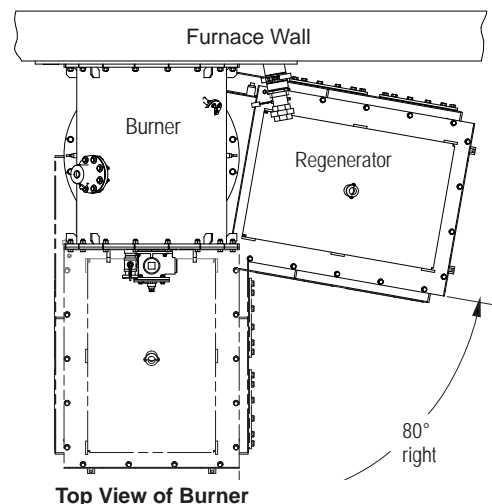
7½°	G	L	S	10°	G	L	S	15°	G	L	S
4343-7	73	47	58	n/a	n/a	n/a	n/a	n/a	04	48	55
4343-8-A	77	49	59	n/a	n/a	n/a	n/a	n/a	76	51	56
4343-8-B	81	53	61	n/a	n/a	n/a	n/a	n/a	81	55	58
4343-9	88	63	66	88	64	65	65	89	66	63	63
4343-10	97	80	72	97	81	71	71	98	82	69	69
4343-12-A	102	92	77	102	93	76	76	103	94	73	73
4343-12-B	107	104	80	108	105	79	79	09	107	77	77

NOTE: Dimension "L" is from the back of the regenerator to the center point of the mating surfaces of the burner and face of mounting plate.

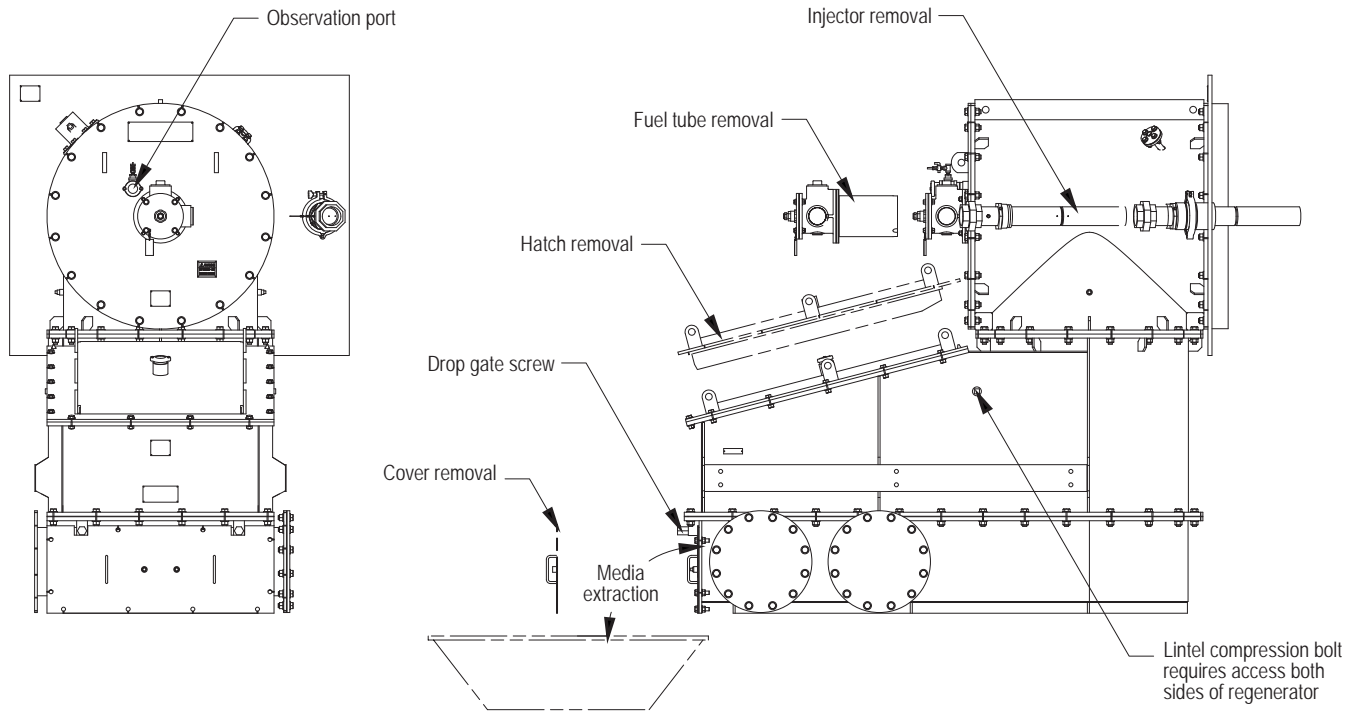
### Horizontal Orientation of Burner and Regenerator

In addition to vertically angling the burner as above, the burner/regenerator orientation can be changed by rotating the regenerator as shown in the illustration. Sizes -9 through -12-B can be rotated in increments of 22½ degrees. Sizes -7 through -8-B can be rotated in increments of 30 degrees. Other angles require specially drilled burner/regenerator mating flanges.

**Specifying Horizontal Orientation:** If the burner and the regenerator centerlines are in alignment or displaced at the above increments, the angle need not be specified. As the regenerator is rotated away from the burner centerline, rotation is specified as "degrees right" or "degrees left." In the illustration, the arrow indicates the rotation of the regenerator to a position of 80 degrees right.



### Areas Requiring Clearance and Access



### Weight in Pounds

4343 Size Description	-7	-8-A	-8-B	-9	-10	-12-A	-12-B
<b>1. BURNER including a</b>	778	882	1301	1756	1956	1956	2690
(a) fuel tube	67	67	70	100	100	100	100
<b>2. REGENERATOR including a, b, c</b>	1899	2140	2614	3567	3915	4749	5271
(a) drop gate	54	62	85	115	127	155	156
(b) access cover	19	20	24	29	30	38	38
(c) hatch cover	93	105	139	227	493	658	944
<b>3. TRANSITION (7-1/2 degree)</b>	164	182	239	337	395	395	472
<b>4. TRANSITION (10 degree)</b>	N/A	N/A	N/A	374	435	435	645
<b>5. TRANSITION (15 degree)</b>	284	315	414	583	684	684	817
<b>6. HEAT TRANSFER MEDIA</b>	343	424	605	957	1545	1864	2505
<b>7. TWINBED II including 1 &amp; 2</b>	2677	3022	3915	5323	5871	6705	7961
plus heat transfer media	3020	3446	4520	6280	7416	8569	10 466
<b>8. TWINBED II including 1, 2, &amp; 3</b>	2841	3204	4154	5660	6266	7100	8433
plus heat transfer media	3184	3628	4759	6617	7811	8964	10 938
<b>9. TWINBED II including 1, 2, &amp; 4</b>	N/A	N/A	N/A	5697	6306	7140	8606
plus heat transfer media	N/A	N/A	N/A	6654	7851	9004	11 111
<b>10. TWINBED II including 1, 2, &amp; 5</b>	2961	3337	4329	5906	6555	7389	8778
plus heat transfer media	3304	3761	4934	6863	8100	9253	11 283

**WARNING:** Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.