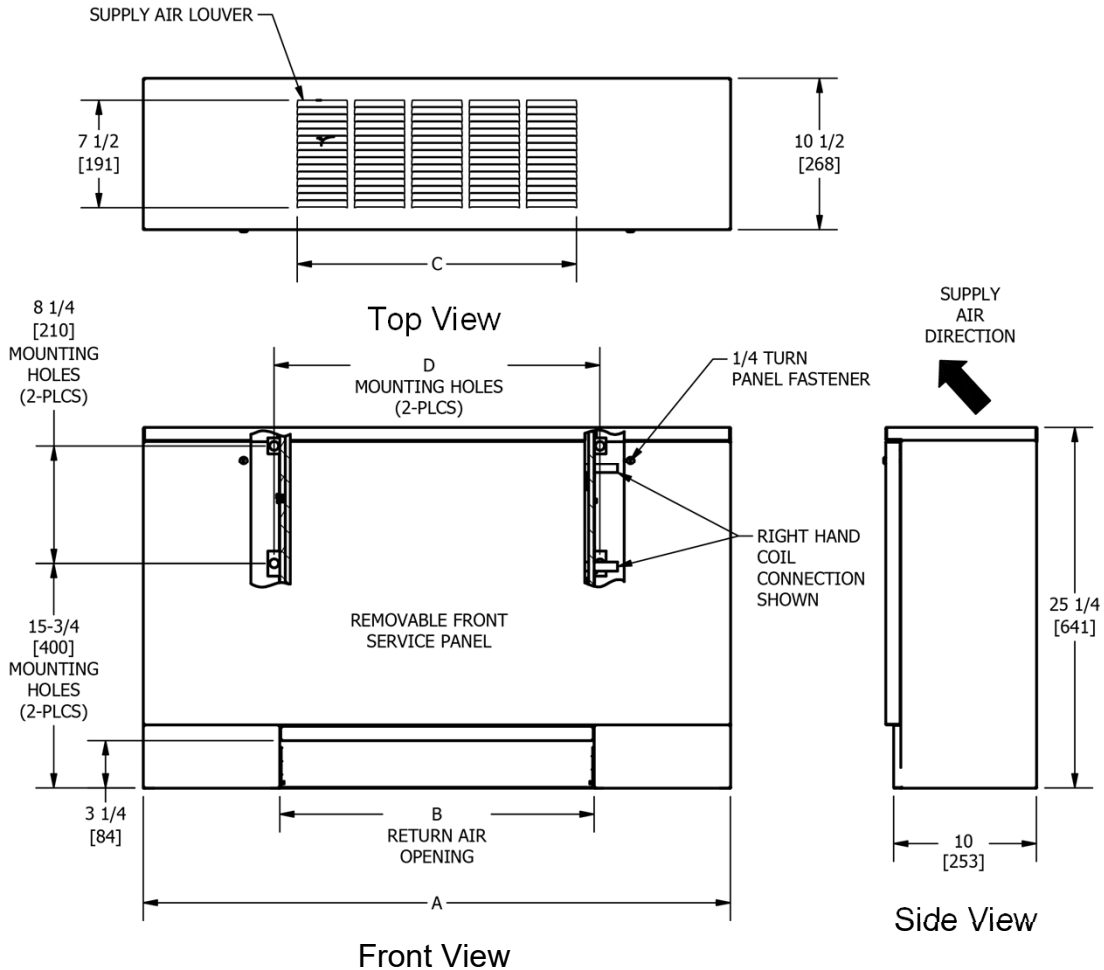


TVBF

Vertical Flat Top Cabinet Fan Coil

 Standard Cabinet


Right hand unit shown. All dimensions are inches [millimeters].

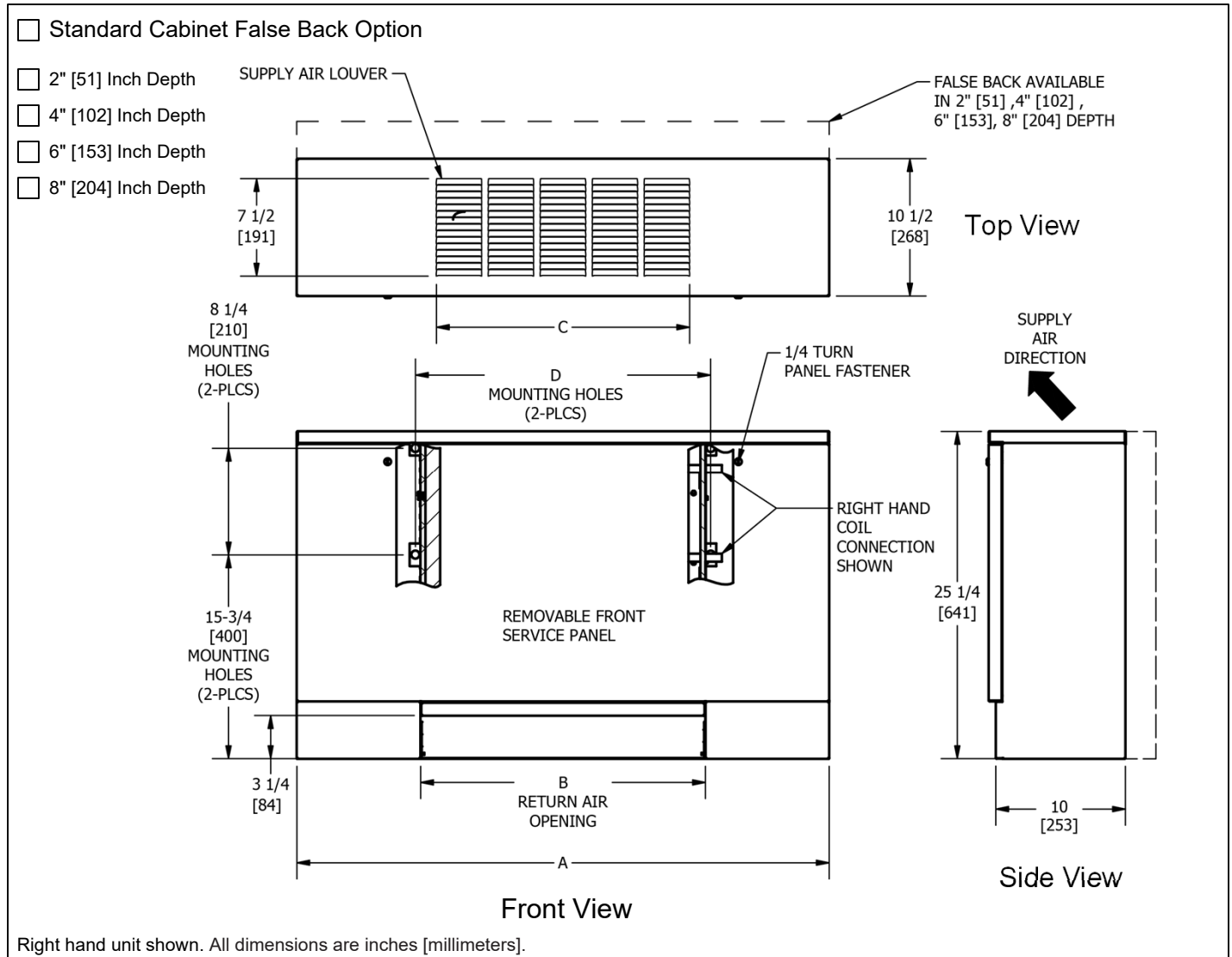
Unit Size	A	B	C	D
02	40 [1016]	22 [559]	19 1/2 [495]	22 3/4 [578]
03	44 [1117]	26 [660]	23 1/2 [597]	26 3/4 [679]
04	50 [1270]	32 [813]	27 1/2 [699]	32 3/4 [832]
06	60 [1524]	42 [1067]	39 1/2 [1003]	42 3/4 [1086]
08	62 [1574]	44 [1118]	39 1/2 [1003]	44 3/4 [1137]
10	76 [1930]	58 [1473]	55 1/2 [1410]	58 3/4 [1492]
12	84 [2133]	66 [1676]	63 1/2 [1613]	66 3/4 [1695]

Notes:

- All dimensions are Inches [millimeters]. All dimensions $\pm \frac{1}{4}$ " [6mm]. Metric values are soft conversion.
- Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
- Standard cabinet finish is "British White #26".
- Parametric design available to increase Height or Width. (See parametric offerings drawing.)
- Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
- False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil



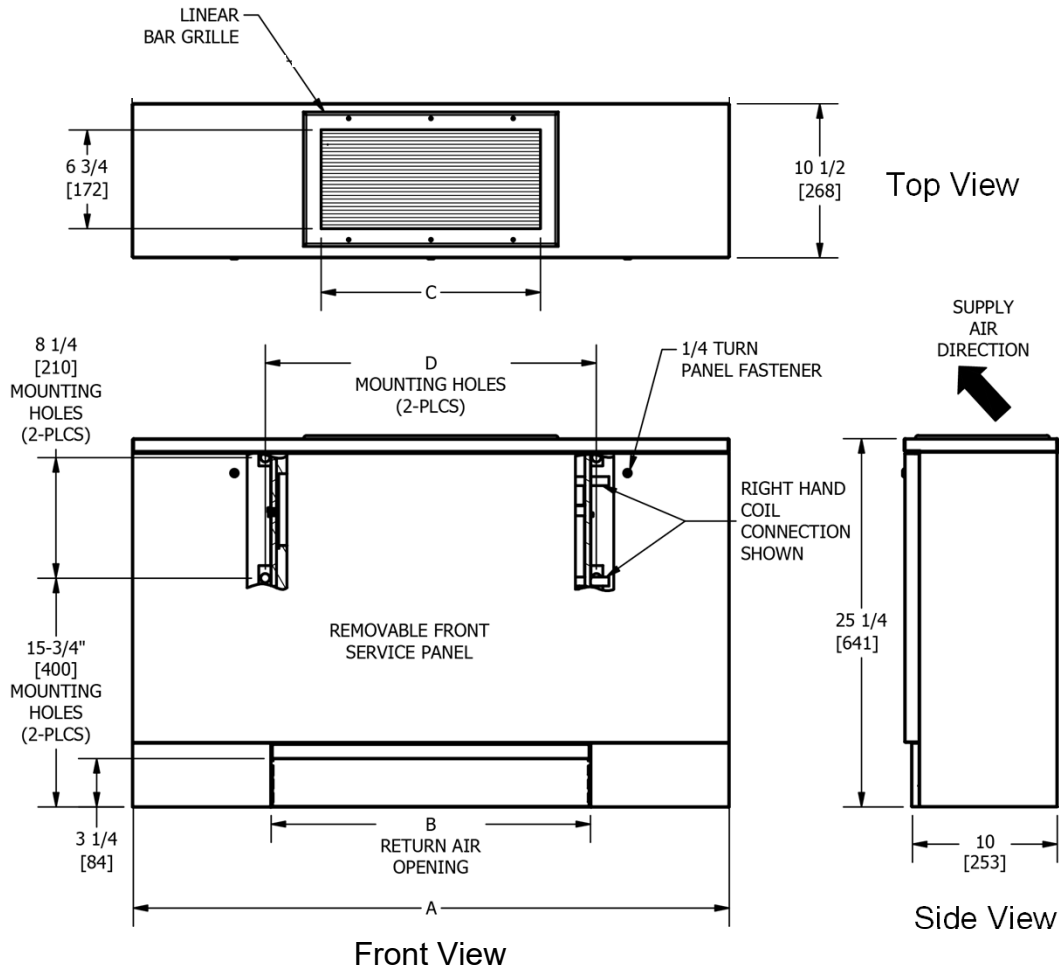
Unit Size	A	B	C	D
02	40 [1016]	22 [559]	19 1/2 [495]	22 3/4 [578]
03	44 [1117]	26 [660]	23 1/2 [597]	26 3/4 [679]
04	50 [1270]	32 [813]	27 1/2 [699]	32 3/4 [832]
06	60 [1524]	42 [1067]	39 1/2 [1003]	42 3/4 [1086]
08	62 [1574]	44 [1118]	39 1/2 [1003]	44 3/4 [1137]
10	76 [1930]	58 [1473]	55 1/2 [1410]	58 3/4 [1492]
12	84 [2133]	66 [1676]	63 1/2 [1613]	66 3/4 [1695]

Notes:

- All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
- Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
- Standard cabinet finish is "British White #26".
- Parametric design available to increase Height or Width. (See parametric offerings drawing.)
- Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
- False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil

 Standard Cabinet with Linear Bar Grille


Right hand unit shown. All dimensions are inches [millimeters].

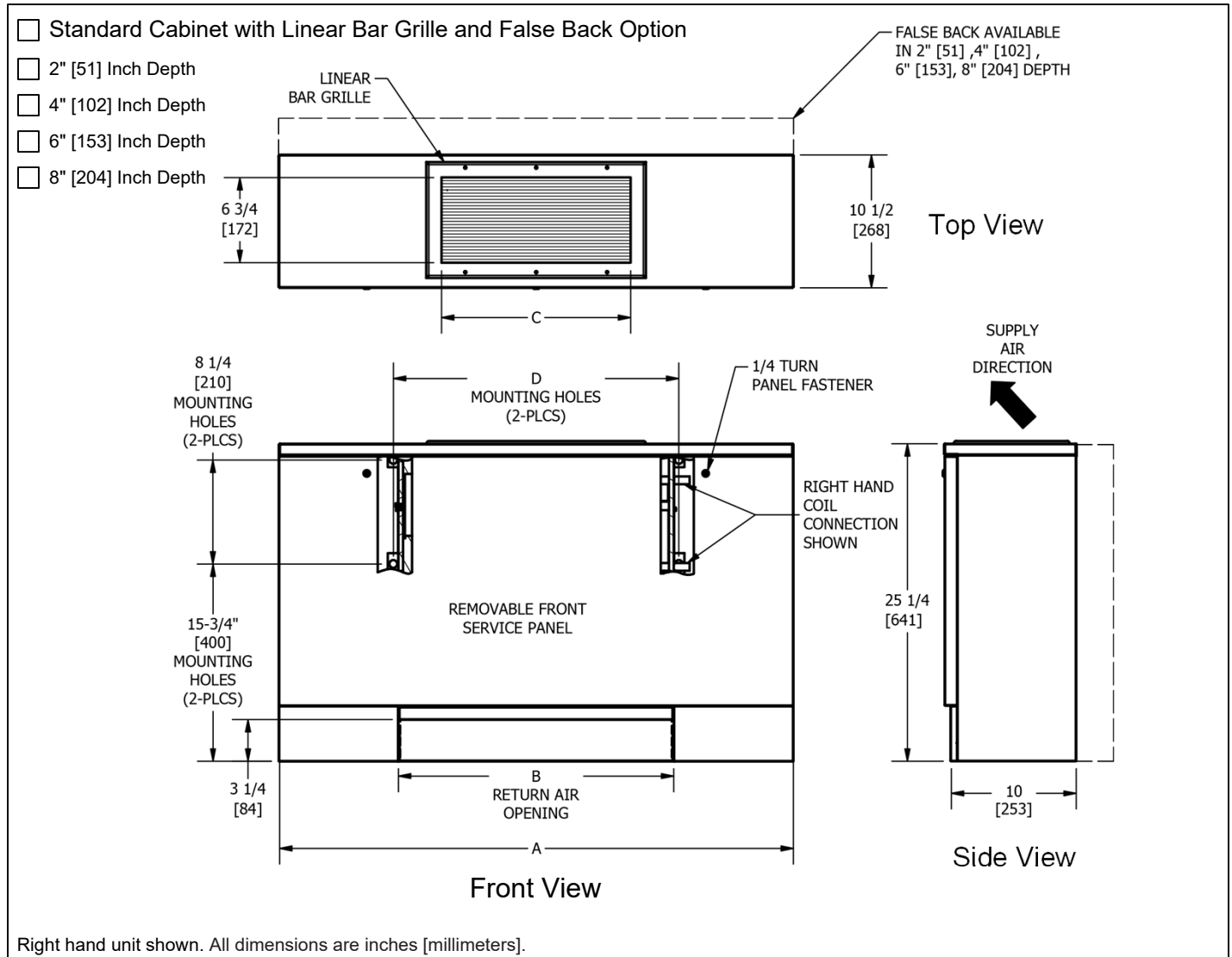
Unit Size	A	B	C	D
02	40 [1016]	22 [559]	$15 \frac{1}{16}$ [383]	$22 \frac{3}{4}$ [578]
03	44 [1117]	26 [660]	$19 \frac{1}{16}$ [484]	$26 \frac{3}{4}$ [679]
04	50 [1270]	32 [813]	$25 \frac{1}{16}$ [637]	$32 \frac{3}{4}$ [832]
06	60 [1524]	42 [1067]	$35 \frac{1}{16}$ [891]	$42 \frac{3}{4}$ [1086]
08	62 [1574]	44 [1118]	$37 \frac{1}{16}$ [941]	$44 \frac{3}{4}$ [1137]
10	76 [1930]	58 [1473]	$51 \frac{1}{16}$ [1297]	$58 \frac{3}{4}$ [1492]
12	84 [2133]	66 [1676]	$59 \frac{1}{16}$ [1500]	$66 \frac{3}{4}$ [1695]

Notes:

- All dimensions are Inches [millimeters]. All dimensions $\pm \frac{1}{4}$ " [6mm]. Metric values are soft conversion.
- Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
- Standard cabinet finish is "British White #26".
- Parametric design available to increase Height or Width. (See parametric offerings drawing.)
- Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
- False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil



Unit Size	A	B	C	D
02	40 [1016]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	44 [1117]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	50 [1270]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	60 [1524]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	62 [1574]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	76 [1930]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	84 [2133]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

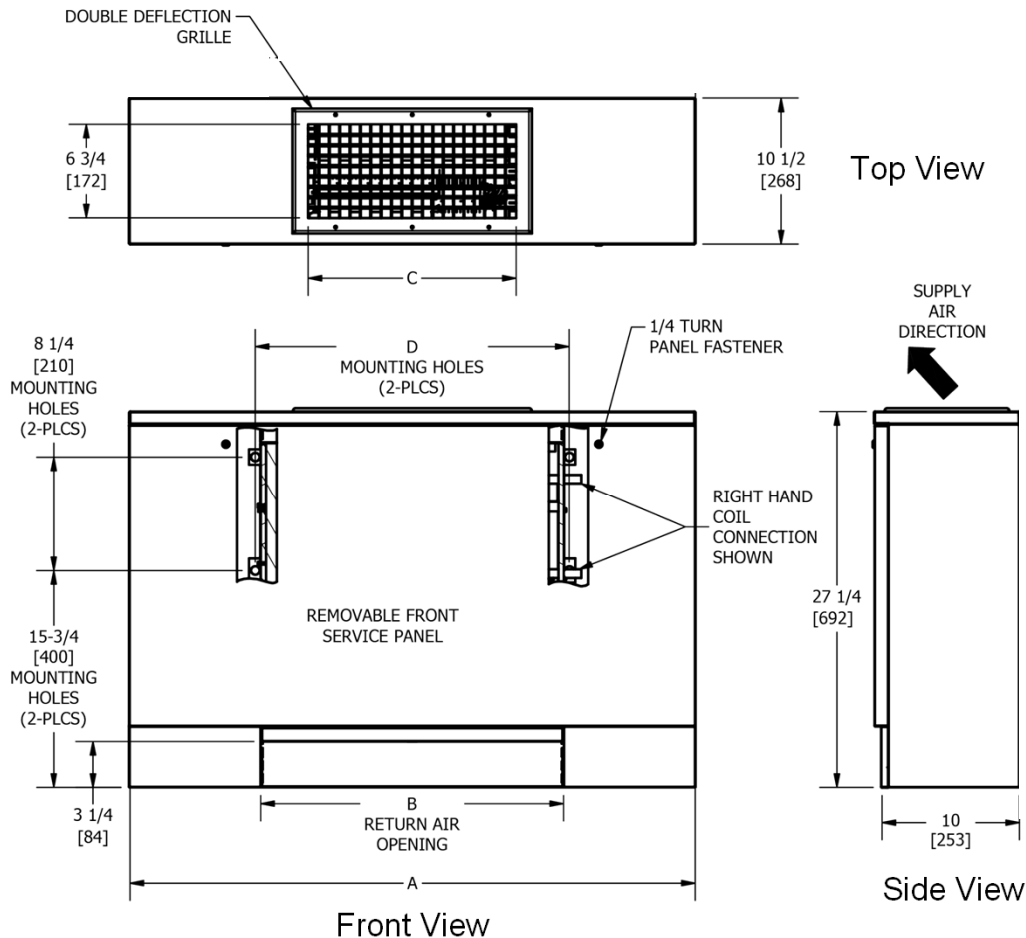
Notes:

- All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
- Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
- Standard cabinet finish is "British White #26".
- Parametric design available to increase Height or Width. (See parametric offerings drawing.)
- Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
- False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil

Standard Cabinet with Double Deflection Grille



Right hand unit shown. All dimensions are inches [millimeters].

Unit Size	A	B	C	D
02	40 [1016]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	44 [1117]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	50 [1270]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	60 [1524]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	62 [1574]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	76 [1930]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	84 [2133]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

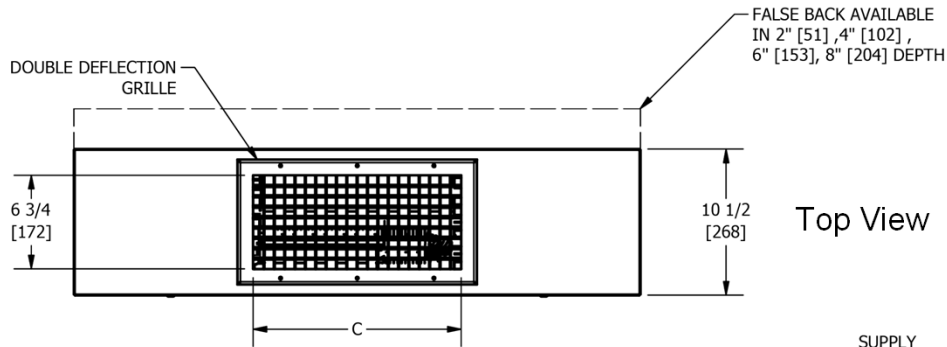
1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Parametric design available to increase Height or Width. (See parametric offerings drawing.)
5. Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
6. False backs ship loose for field installation.

TVBF

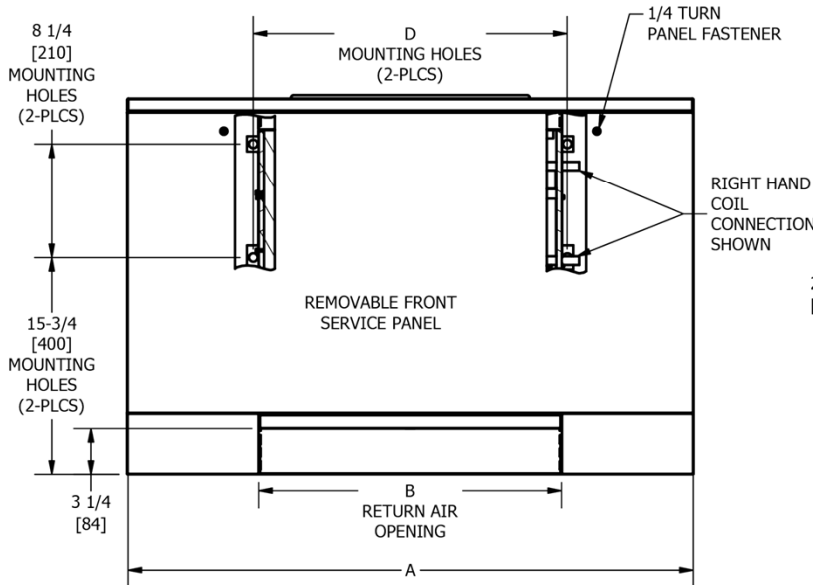
Vertical Flat Top Cabinet Fan Coil

 Standard Cabinet with Double Deflection Grille and False Back Option

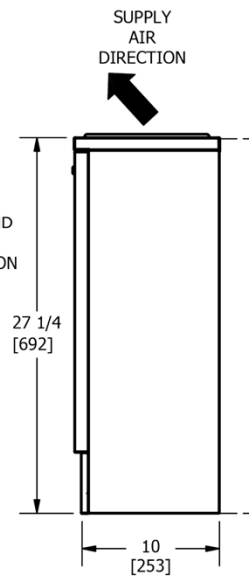
- 2" [51] Inch Depth
- 4" [102] Inch Depth
- 6" [153] Inch Depth
- 8" [204] Inch Depth



Top View



Front View



Side View

Right hand unit shown. All dimensions are inches [millimeters].

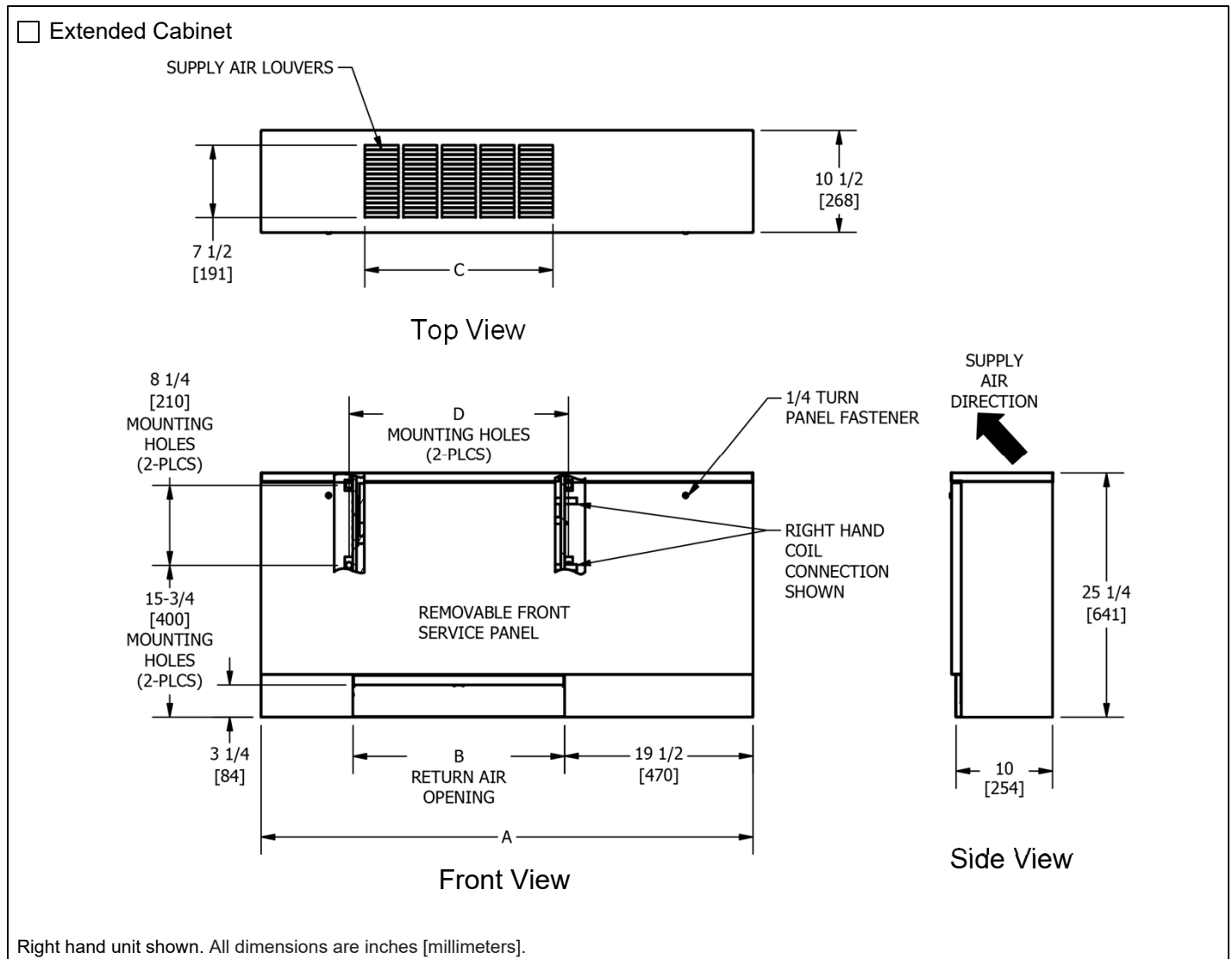
Unit Size	A	B	C	D
02	40 [1016]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	44 [1117]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	50 [1270]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	60 [1524]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	62 [1574]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	76 [1930]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	84 [2133]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4$ " [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Parametric design available to increase Height or Width. (See parametric offerings drawing.)
5. Some control or piping package options may require extended end pockets and/or extended drain pans. (See extended end pocket drawing.)
6. False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil, Extended



Unit Size	A	B	C	D
02	50 [1270]	22 [559]	19 1/2 [495]	22 3/4 [578]
03	54 [1371]	26 [660]	23 1/2 [597]	26 3/4 [679]
04	60 [1524]	32 [813]	27 1/2 [699]	32 3/4 [832]
06	70 [1778]	42 [1067]	39 1/2 [1003]	42 3/4 [1086]
08	72 [1829]	44 [1118]	39 1/2 [1003]	44 3/4 [1137]
10	86 [2184]	58 [1473]	55 1/2 [1410]	58 3/4 [1492]
12	94 [2388]	66 [1676]	63 1/2 [1613]	66 3/4 [1695]

Notes:

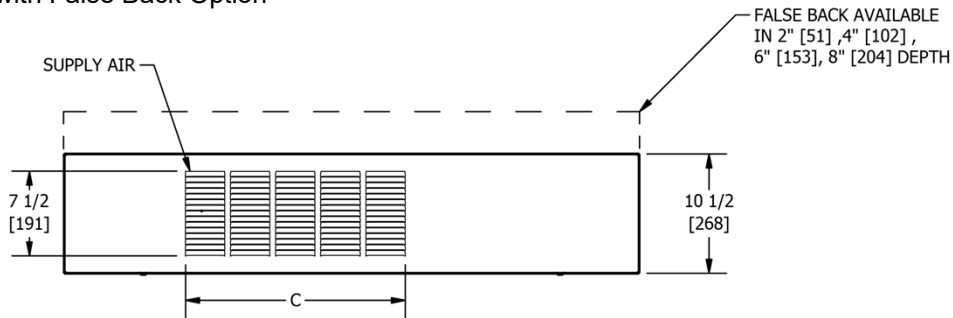
- All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
- Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
- Standard cabinet finish is "British White #26".
- Parametric design available to increase Height or Width. (See parametric offerings drawing.)
- Some control or piping package options may require extended end pockets and/or extended drain pans.
- False back extension available.
- Right hand extended end pocket shown. Left hand unit similar, but opposite.

TVBF

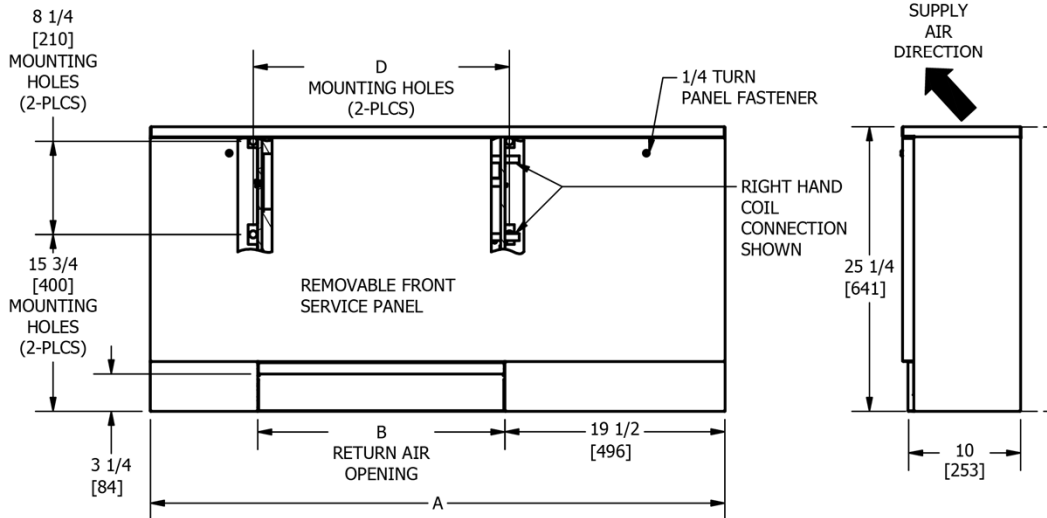
Vertical Flat Top Cabinet Fan Coil, Extended

 Extended Cabinet with False Back Option

- 2" [51] Inch Depth
- 4" [102] Inch Depth
- 6" [153] Inch Depth
- 8" [204] Inch Depth



Top View



Side View

Right hand unit shown. All dimensions are inches [millimeters].

Unit Size	A	B	C	D
02	50 [1270]	22 [559]	19 1/2 [495]	22 3/4 [578]
03	54 [1371]	26 [660]	23 1/2 [597]	26 3/4 [679]
04	60 [1524]	32 [813]	27 1/2 [699]	32 3/4 [832]
06	70 [1778]	42 [1067]	39 1/2 [1003]	42 3/4 [1086]
08	72 [1829]	44 [1118]	39 1/2 [1003]	44 3/4 [1137]
10	86 [2184]	58 [1473]	55 1/2 [1410]	58 3/4 [1492]
12	94 [2388]	66 [1676]	63 1/2 [1613]	66 3/4 [1695]

Notes:

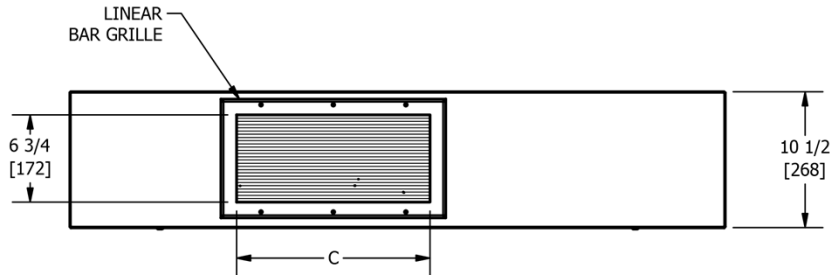
1. All dimensions are Inches [millimeters]. All dimensions \pm 1/4" [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Right hand extended end pocket shown. Left hand unit similar, but opposite.
5. False backs ship loose for field installation.

TVBF

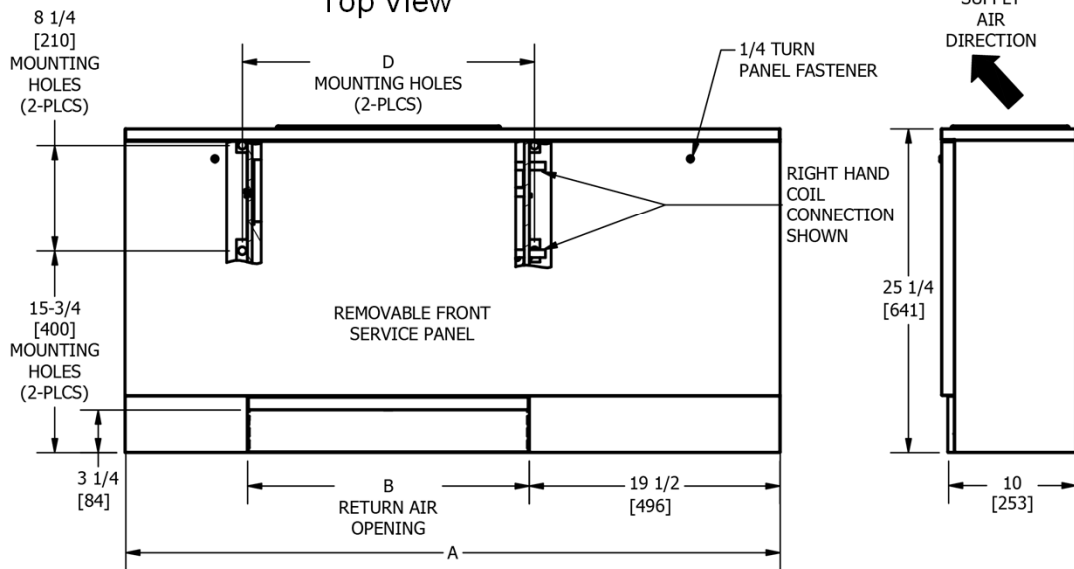
Vertical Flat Top Cabinet Fan Coil, Extended

 Extended Cabinet with Linear Bar Grille

- 2" [51] Inch Depth
- 4" [102] Inch Depth
- 6" [153] Inch Depth
- 8" [204] Inch Depth



Top View



Front View

Side View

Right hand unit shown. All dimensions are inches [millimeters].

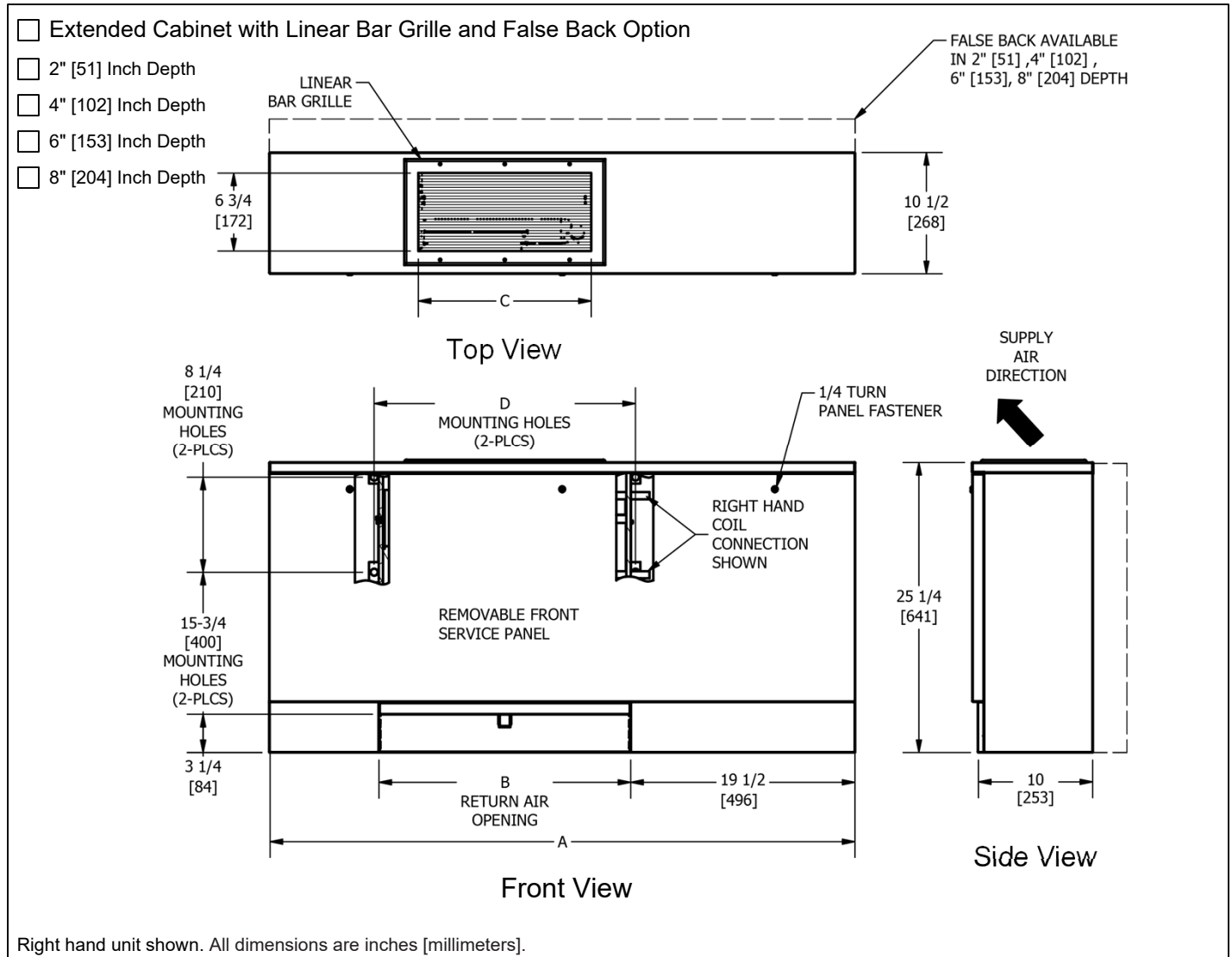
Unit Size	A	B	C	D
02	50 [1270]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	54 [1371]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	60 [1524]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	70 [1778]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	72 [1829]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	86 [2184]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	94 [2388]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Parametric design available to increase Height or Width. (See parametric offerings drawing.)
5. Some control or piping package options may require extended end pockets and/or extended drain pans.
6. False back extension available.
7. Right hand extended end pocket shown. Left hand unit similar, but opposite.

TVBF

Vertical Flat Top Cabinet Fan Coil, Extended



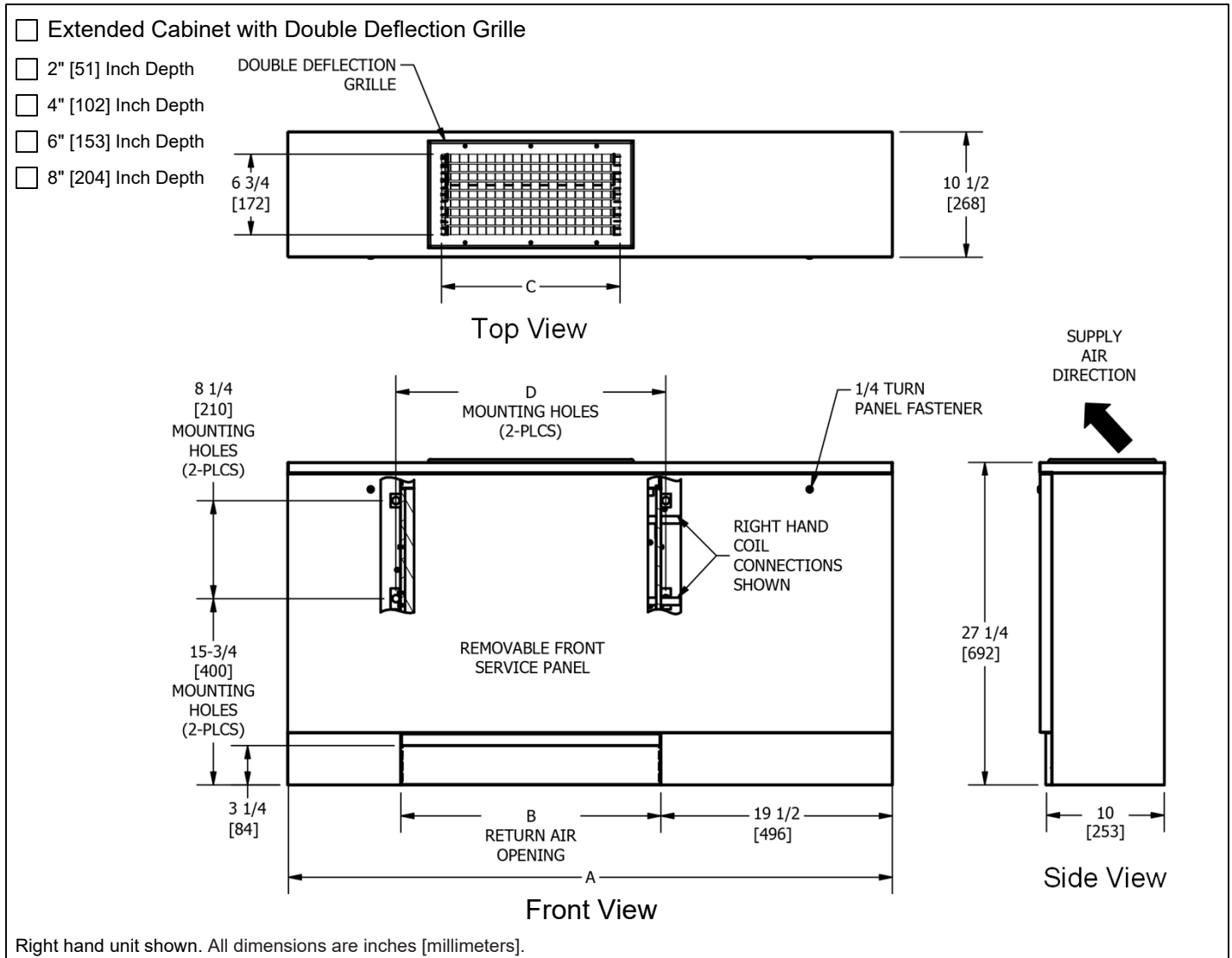
Unit Size	A	B	C	D
02	50 [1270]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	54 [1371]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	60 [1524]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	70 [1778]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	72 [1829]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	86 [2184]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	94 [2388]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Right hand unit shown. Left hand unit similar, but opposite.
5. False backs ship loose for field installation.

TVBF

Vertical Flat Top Cabinet Fan Coil, Extended



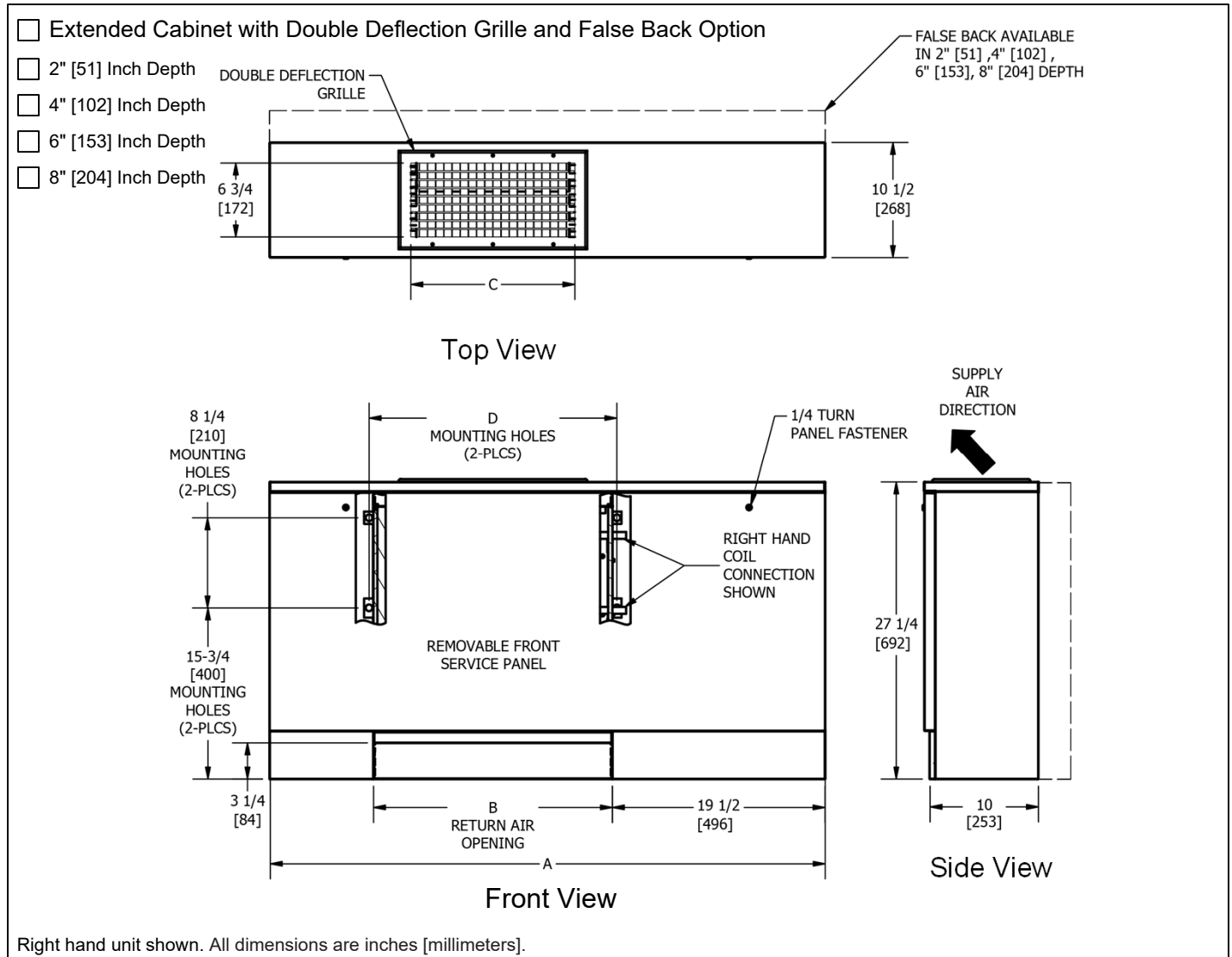
Unit Size	A	B	C	D
02	50 [1270]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	54 [1371]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	60 [1524]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	70 [1778]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	72 [1829]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	86 [2184]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	94 [2388]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Parametric design available to increase Height or Width. (See parametric offerings drawing.)
5. Some control or piping package options may require extended end pockets and/or extended drain pans.
6. False back extension available.
7. Right hand extended end pocket shown. Left hand unit similar, but opposite.

TVBF

Vertical Flat Top Cabinet Fan Coil, Extended



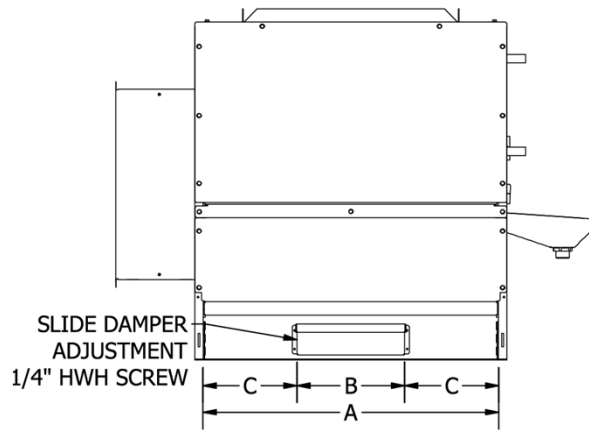
Unit Size	A	B	C	D
02	50 [1270]	22 [559]	15 1/16 [383]	22 3/4 [578]
03	54 [1371]	26 [660]	19 1/16 [484]	26 3/4 [679]
04	60 [1524]	32 [813]	25 1/16 [637]	32 3/4 [832]
06	70 [1778]	42 [1067]	35 1/16 [891]	42 3/4 [1086]
08	72 [1829]	44 [1118]	37 1/16 [941]	44 3/4 [1137]
10	86 [2184]	58 [1473]	51 1/16 [1297]	58 3/4 [1492]
12	94 [2388]	66 [1676]	59 1/16 [1500]	66 3/4 [1695]

Notes:

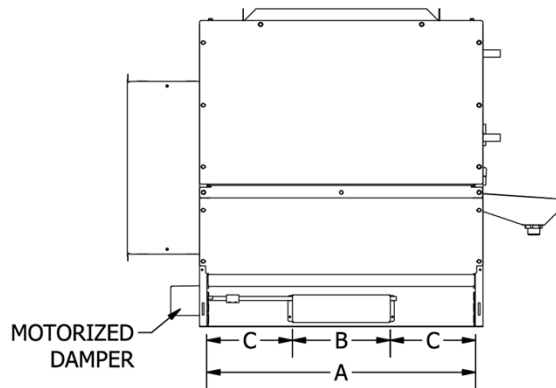
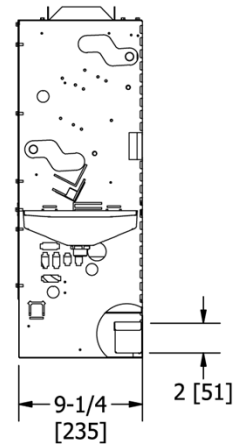
1. All dimensions are Inches [millimeters]. All dimensions $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Junction box size and location varies with unit features. Control options may be limited. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
3. Standard cabinet finish is "British White #26".
4. Right hand extended end pocket shown. Left hand unit similar, but opposite.
5. False backs ship loose for field installation.

TVBF, Outside Air Damper

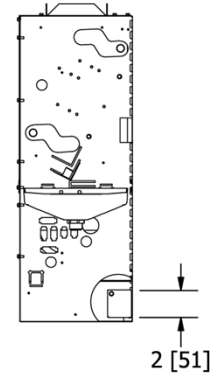
OUTSIDE AIR DAMPER



MANUAL DAMPER OPTION



MOTORIZED DAMPER OPTION

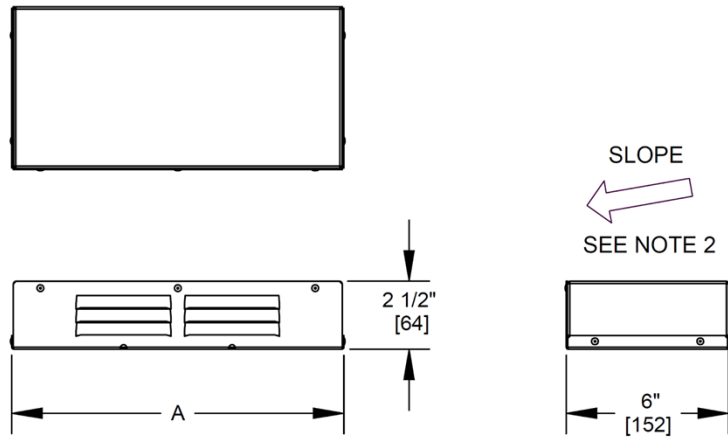
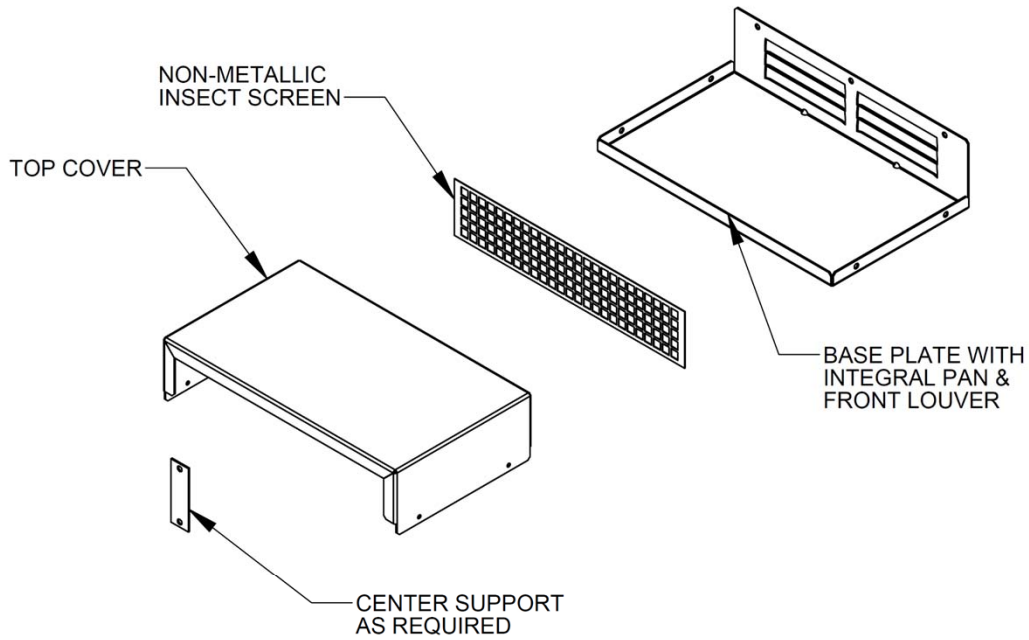


Unit Size	A	B	C
02	22 [559]	8 [203]	7 [178]
03	26 [660]	10 [254]	8 [203]
04	32 [813]	12 [305]	10 [254]
06	42 [1067]	14 [356]	14 [356]
08	44 [1118]	18 [457]	13 [330]
10	58 [1473]	27 [686]	15 1/2 [394]
12	66 [1676]	27 [686]	19 1/2 [495]

NOTES:

1. All dimensions are inches [millimeters]. All dimensions are $\pm 1/4$ " [6mm]. Metric values are soft conversion.
2. Model TVBF shown; typical for Models TVBF and TVBF.
3. The standard damper options may not provide freeze protection under all conditions and applications. Other forms of freeze protection may be required.
4. Right hand unit shown; left hand unit is similar but opposite.

□ TVBF, Outside Air Wall Box

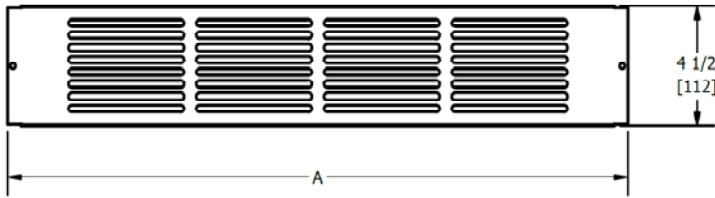
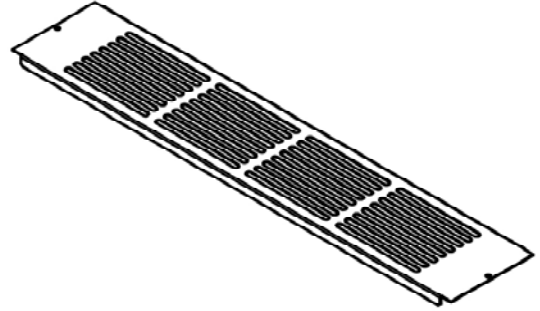
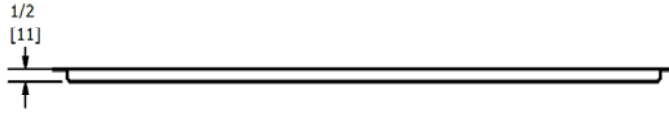


Unit Size	A
02	8 1/4 [203]
03	10 1/4 [260]
04	12 1/4 [311]
06	14 1/4 [362]
08	18 1/4 [464]
10	27 1/4 [692]
12	27 1/4 [692]

NOTES:

1. All dimensions are inches [millimeters]. All dimensions are $\pm 1/4"$ [6mm]. Metric values are soft conversion.
2. Material is 0.05" thick aluminum.
3. Wall box should be installed pitched slightly toward exterior surface of wall.
4. "Weep" holes should not be obstructed when sealing box to the wall.

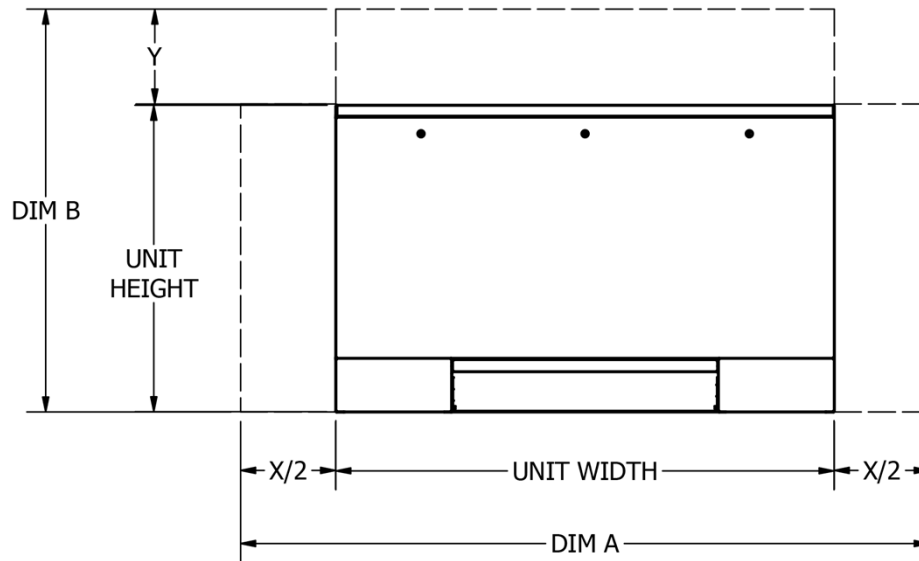
TVBF, Toe space with slots



Part Number	Unit Size	A
51-000437-01	02	22 3/4 [578]
51-000437-02	03	26 3/4 [679]
51-000437-03	04	32 3/4 [832]
51-000437-04	06	42 3/4 [1086]
51-000437-05	08	44 3/4 [1137]
51-000437-06	10	58 3/4 [1492]
51-000437-07	12	66 3/4 [1695]

NOTES:

1. All dimensions are inches [millimeters]. All dimensions are $\pm 1/4$ " [6mm]. Metric values are soft conversion.
2. Typical for TVBF and TVBF models.
3. Return grille is held in place with sheet metal screws.

TVBF, Parametric Option


Available for horizontal discharge only.

Note:

Internal chassis and air openings remain the same. External cabinet can increase in height and width in 1 inch increments up to 12 inches.


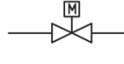

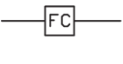

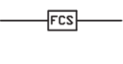
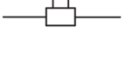





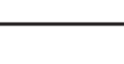
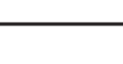
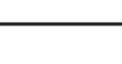
DIMENSION A (Inches)												
Size	X=0	X=2	X=3	X=4	X=5	X=6	X=7	X=8	X=9	X=10	X=11	X=12
02	40	42	43	44	46	46	47	48	49	50	51	52
03	44	46	47	48	49	50	51	52	53	54	55	56
04	50	52	53	54	55	56	57	58	59	60	61	62
06	60	62	63	64	65	66	67	68	69	70	71	72
08	62	64	65	66	68	68	69	70	71	72	73	74
10	76	78	79	80	81	82	83	84	85	86	87	88
12	84	86	87	88	89	90	91	92	93	94	N/A	N/A
DIMENSION B (Inches)												
Size	Y=0	Y=2	Y=3	Y=4	Y=5	Y=6	Y=7	Y=8	Y=9	Y=10	Y=11	Y=12
ALL	25 ¼	27 ¼	28 ¼	29 ¼	30 ¼	31 ¼	32 ¼	33 ¼	34 ¼	35 ¼	36 ¼	37 ¼

DIMENSION A (Millimeters)												
Size	X=0	X=51	X=76	X=102	X=127	X=152	X=178	X=203	X=229	X=254	X=279	X=305
02	1016	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028
03	1118	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130
04	1270	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282
06	1524	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536
08	1575	1577	1578	1579	1580	1581	1582	1583	1584	1585	1586	1587
10	1930	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942
12	2134	2136	2137	2138	2139	2140	2141	2142	2143	2144	N/A	N/A
DIMENSION B (Millimeters)												
Size	Y=0	Y=51	Y=76	Y=102	Y=127	Y=152	Y=178	Y=203	Y=229	Y=254	Y=279	Y=305
ALL	641	692	718	743	768	794	819	845	870	895	921	946

General Notes - Piping Packages

1. All the packages and components described in this brochure are optional, extra cost features. Consult your Titus sales representative for details. Not all components are available on all unit models. See valve package code charts.
 2. All standard valve packages and piping components described in this catalog are for chilled and hot water applications. They may also be used with ethylene and propylene glycol solutions up to 50% concentration.
 3. VAV piping packages – as well as THB, THH, and TVB fan coil unit packages – are factory assembled and shipped loose for field installation and wiring. All TVS fan coil unit packages are factory assembled, installed, and wired.
 4. THB, THH and TVB unit valve packages are designed to mount directly onto the coil connections.
 5. Control valve actuators are removable, and may be serviced or replaced without removal of the valve body.
 6. Control valves are piped normally closed to the coil. For hot water coils, control valves are available normally open.
 7. 3-Way control valves are piped as mixing valves.
 8. All ball isolation valves are furnished with an adjustable memory stop feature and may be used as a balancing valve.
 9. When ordered, unions are installed at the water coil, and are available on all fan coil units except TVS. Unions must be ordered on both coils of 4-pipe units. Unions are not available separately.
 10. All TVS units include two flexible stainless steel braided hoses and ball isolation valves per coil. This hose/valve combination provides a "union" type connection to allow coil removal.
 11. Pressure/temperature (P/T) ports are located to monitor the pressure and temperature across the coil.
 12. Automatic fixed flow controls (FC, FCN, FCS) are available in flow (GPM) ratings as follows:
 1/2" = 0.5 to 4.0 GPM in 0.5 GPM increments
 >4.0 to 9.0 GPM in 1.0 GPM increments
 3/4" = 3.0 to 4.0 GPM in 0.5 GPM increments
 >4.0 to 12.0 GPM in 1.0 GPM increments
 1" = 5.0 to 10.0 GPM in 1.0 GPM increments
 >10.0 to 20.0 GPM in 2.0 GPM increments
 Individual coil GPM requirements must be specified at time of order.
 13. Component performance ratings such as Cv, maximum close-off pressure, operating temperature and pressure, are shown in Component Specifications.
 14. Valve and component performance ratings shown are maximum values. Appearance and actual ratings may vary with individual vendor and component size.
 15. Adjustable flow setter (AFS) is rated for full shut-off and replaces the return line ball isolation valve on all products except the TVS fan coil unit.
 16. 2-Pipe "change-over" units using a 2-way control valve and factory thermostat must be ordered with a E" "bleed" line to assure proper changeover thermostat (aquastat) operation. The E" "bleed" line is optional on 2-pipe "changeover" units with field provided thermostats.
 17. Some piping packages may extend beyond the unit drain pan and/or factory auxiliary drip pan. Requirements for field furnished and installed valve package and piping insulation must be determined by others on an individual application basis.
- The valve package piping and component details shown in this catalog are for standard valves and components. The suitability of all valve packages and components must be determined by others based on individual application requirements.**
- Titus assumes no responsibility for selection and/or application of valve packages and components.
- Modulating cooling valve control can increase part load space relative humidity. Titus does not encourage or endorse modulating valve control for fan coil cooling systems, and is not liable for high humidity problems that may result.**
- Modulating heating valve control may result in low leaving air temperatures while the valve reduces flow and as setpoint is approached.**
- Contact Titus for any requirements not shown in this catalog.

CONTROL DEVICE LEGEND

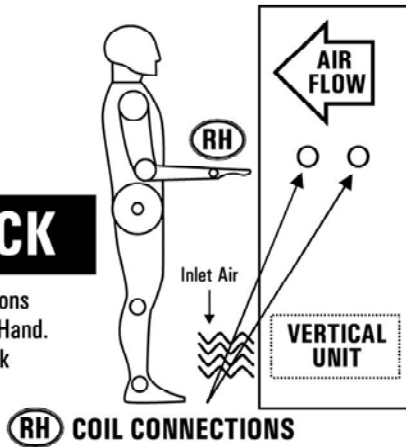
MANUAL BALL VALVE WITH MEMORY STOP (BVMS)		2-WAY CONTROL VALVE		3-WAY CONTROL VALVE	
FIXED FLOW CONTROL VALVE (FC)		AUTOMATIC CARTRIDGE FLOW CONTROL WITHOUT SCREEN		AUTOMATIC CARTRIDGE FLOW CONTROL WITH SCREEN	
ADJUSTABLE FLOW CIRCUIT SETTER (AFS)		BYPASS BALANCE VALVE (BPV)		PRESSURE-TEMPERATURE TEST PORT (PT)	
Y-STRAINER (Y-STR)		Y-STRAINER W/CLEANOUT VALVE (YCO)		UNION	
FLEXIBLE HOSE (FH)		AQUA-THERMOSTAT		SCHRADER FITTING	

Coil Handing

COIL/UNIT HANDING GUIDE

AIR to BACK

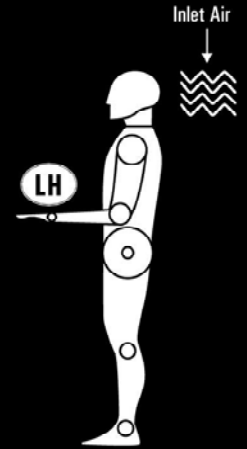
Unit and coil connections shown above are Right Hand. (RH) Inlet air to back



(LH) COIL CONNECTIONS

AIR to BACK

Unit and coil connections shown above are Left Hand. (LH) Inlet air to back



Vertical Largo Units are handed as "Inlet Air to Back"

TVB

TVS

TBL/TBS

Horizontal Largo Units are handed as "Inlet Air to Back"

THH

THB

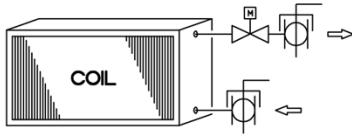
TBH/TBV

TBM

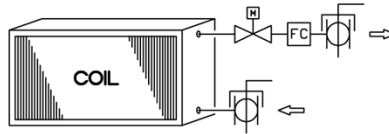
Note: The industry standard to determine handing of an HVAC unit is with Inlet Air to Back.

TVBF, Piping Packages

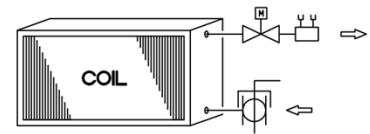
2-WAY PIPING PACKAGE												
Package Code	Components			Valve Size			Unions			P/T Ports	1/4" Bleed Line	Y-STR w/ BDV
	BVMS	FC	AFS	1/2"	3/4"	1"	1/2"	3/4"	1"			
24	X									X	X	X
25	X	X		X	X	X	X	X	X	X	X	X
29	X		X							X	X	X


 Code 24

2-Way Control Valve and Ball Valves With Memory Stop

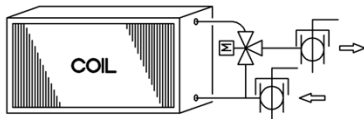

 Code 25

2-Way Control Valve, Ball Valves with Memory Stop, and Fixed Flow Control

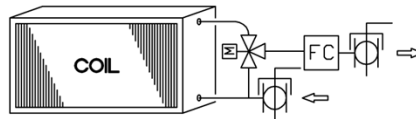

 Code 29

2-Way Control Valve, Ball Valve with Memory Stop, and Adjustable Flow Setter

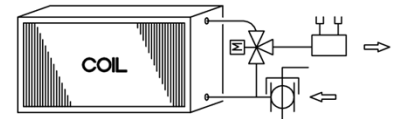
3-WAY PIPING PACKAGE											
Package Code	Components			Valve Size			Unions			P/T Ports	Y-STR w/ BDV
	BVMS	FC	AFS	1/2"	3/4"	1"	1/2"	3/4"	1"		
36	X									X	X
37	X	X		X	X	X	X	X	X	X	X
41	X		X							X	X


 Code 36

3-Way Control Valve and Ball Valves With Memory Stop

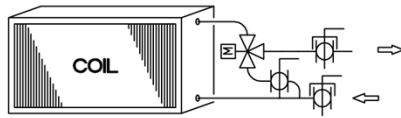

 Code 37

3-Way Control Valve, Ball Valves with Memory Stop, and Fixed Flow Control

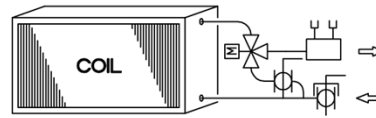

 Code 41

3-Way Control Valve, Ball Valve With Memory Stop, and Adjustable Flow Setter

3-WAY PACKAGE WITH BALANCE BYPASS VALVE										
Package Code	Components			Valve Size			Unions			P/T Ports
	BVMS	FC	AFS	1/2"	3/4"	1"	1/2"	3/4"	1"	
50	X			X	X	X	X	X	X	X
53	X		X							X


 Code 50

3-Way Control Valve, Ball Valve in Bypass, and Ball Valves With Memory Stop


 Code 53

3-Way Control Valve, Ball Valve in Bypass, Ball Valve With Memory Stop, and Adjustable Flow Setter

LEGEND, COMPONENT PRESSURE RATINGS

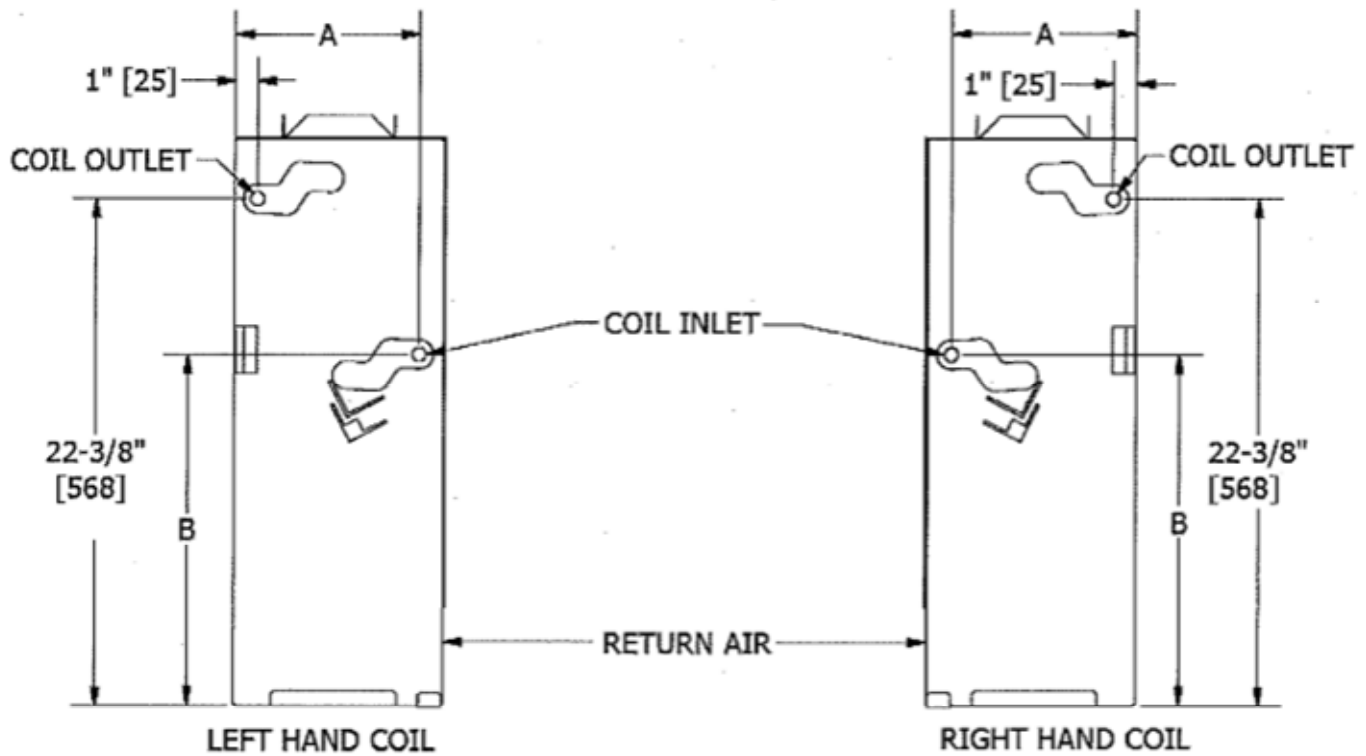
BVMS:	Manual Ball Valves w/Memory Stop, 600 PSIG
FC:	Fixed Flow Control, Device A = 600 PSIG; Device B = 500 PSIG
AFS:	Adjustable Flow Circuit Setter, 300 PSIG
P/T Port:	Pressure/Temperature Test Port, 400 PSIG
Union:	125 PSIG (contact factory for 600 PSIG)
Control Valve:	300 PSIG
BPV:	Balance Bypass Valve, 400 PSIG
Y-STR W/ BDV:	Y-Strainer

NOTES:

- All drawings subject to change without prior notice.
- Diagrams show component position in relation to fluid flow. Actual valve package configuration varies with unit type, hand connection, pipe size and options.
- 1/4" bleed line is required on 2-pipe cool and heat auto changeover systems with factory provided thermostats; optional for thermostats by others.
- Unions provided as standard on all FW piping packages.

TVBF, Hydronic Coil Connection

Hydronic Coil Connections (Coil 1 Only)



2- Pipe Hydronic Coil									
Coil #1	Dimension	1-Row HW		2-Row CW or HW		3-Row CW		4-Row CW (See Note #2)	
		inches	mm	inches	mm	inches	mm	inches	mm
	A	6.00	152	7.25	184	7.87	200	8.12	206
B	14.57	370	14.64	372	15.68	398	15.50	394	

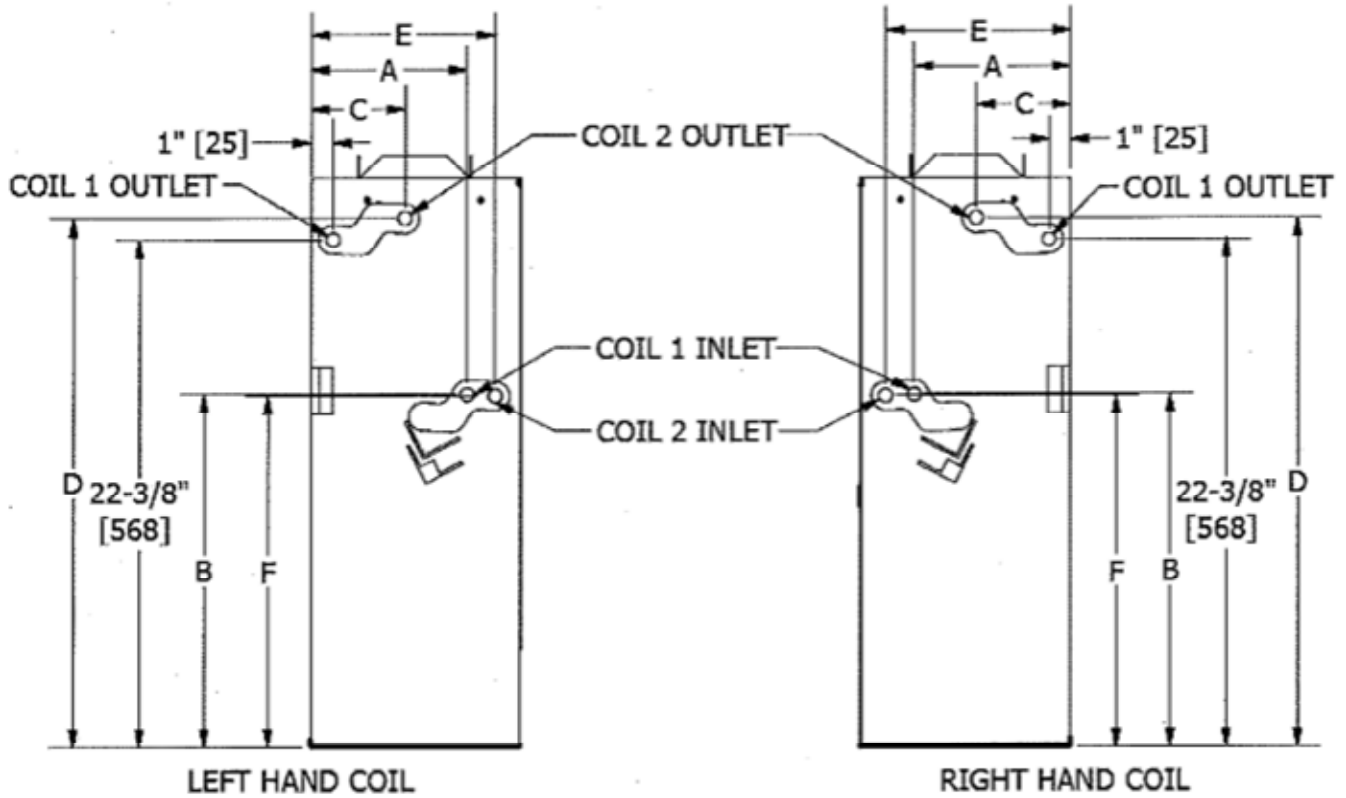
Coil Connection Types														
Unit Size	Chilled Water (CW)						Hot Water (HW)				Steam			
	2-Row		3-Row		4-Row		1-Row		2-Row		1-Row		2-Row	
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
	5/8	16	5/8	16	5/8	16	5/8	16	5/8	16	5/8	16	5/8	16
02 Thru 12	DX													
	2-Row				3-Row				4-Row					
	Liquid		Suction		Liquid		Suction		Liquid		Suction			
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
	3/8	10	5/8	16	3/8	10	5/8	16	3/8	10	5/8	16		

NOTES:

1. See Coil Connection Table located on Page 20.
2. 4-Row coil not available with electric heat.

TVBF, Hydronic Coil Connections (2 Coil Configuration)

Hydronic Coil Connections (Coil 1 & Coil 2)



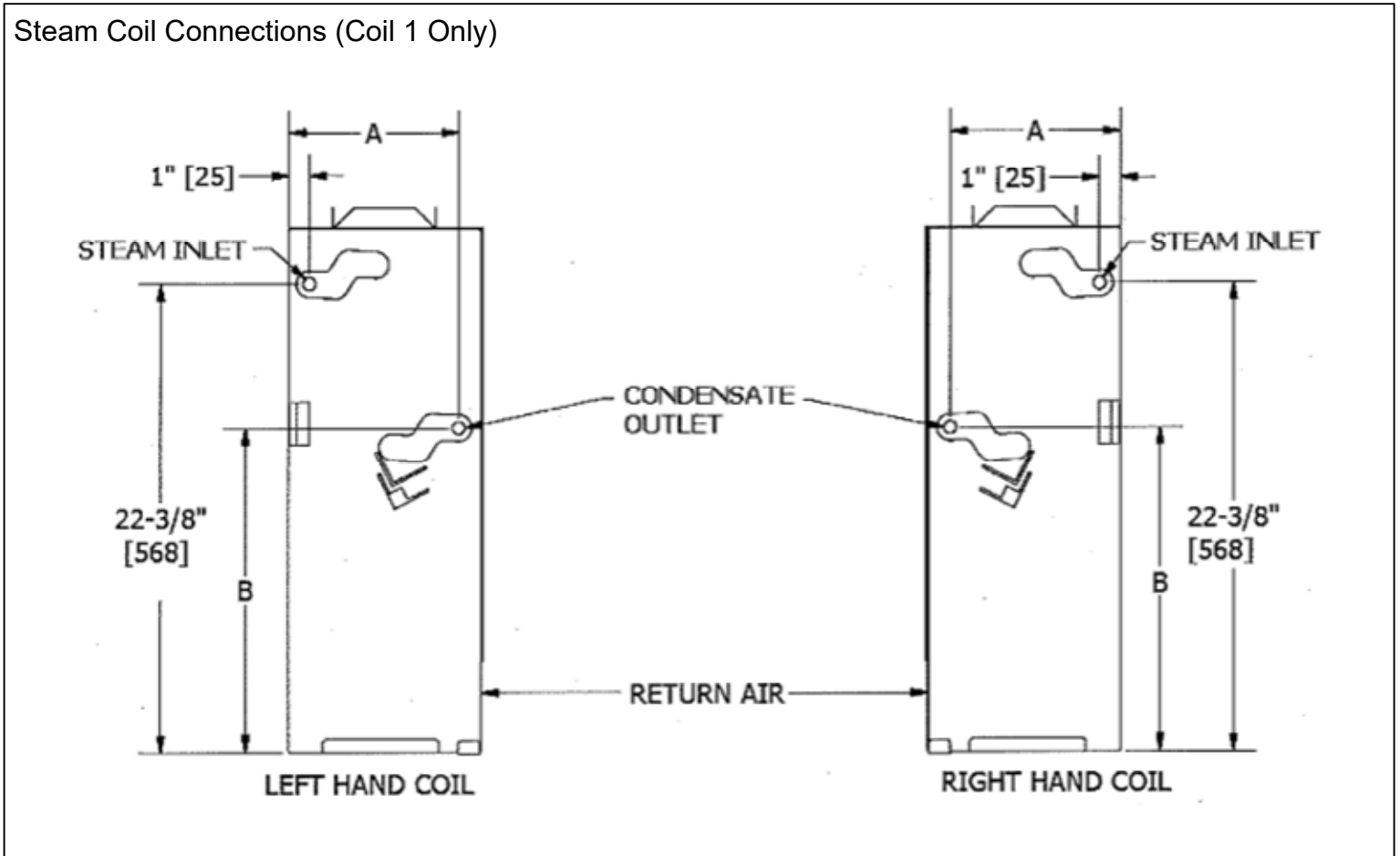
4-Pipe Hydronic Coils											
Coil #1	Dimension	1-Row HW only		2-Row CW or HW				3-Row CW or HW			
		inches	mm	inches		mm		inches	mm		
		A	6.00	152	7.25	184	7.87	200			
B	14.57	370	14.64	372	15.68	398					
Coil #2	Dimension	2-Row CW		3-Row CW		1-Row CW or HW		2-Row CW or HW		1-Row CW or HW	
		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
	C	2.22	56	2.22	56	2.90	74	2.90	74	4.15	105
	D	22.30	566	22.30	566	23.35	593	23.35	593	23.28	591
	E	6.88	175	8.13	207	6.88	175	8.13	207	8.13	207
F	15.55	395	15.45	391	15.55	395	15.45	391	15.45	391	

NOTES:

- See Coil Connection Table located on Page 20.

TVBF, Steam Coil Connection

Steam Coil Connections (Coil 1 Only)



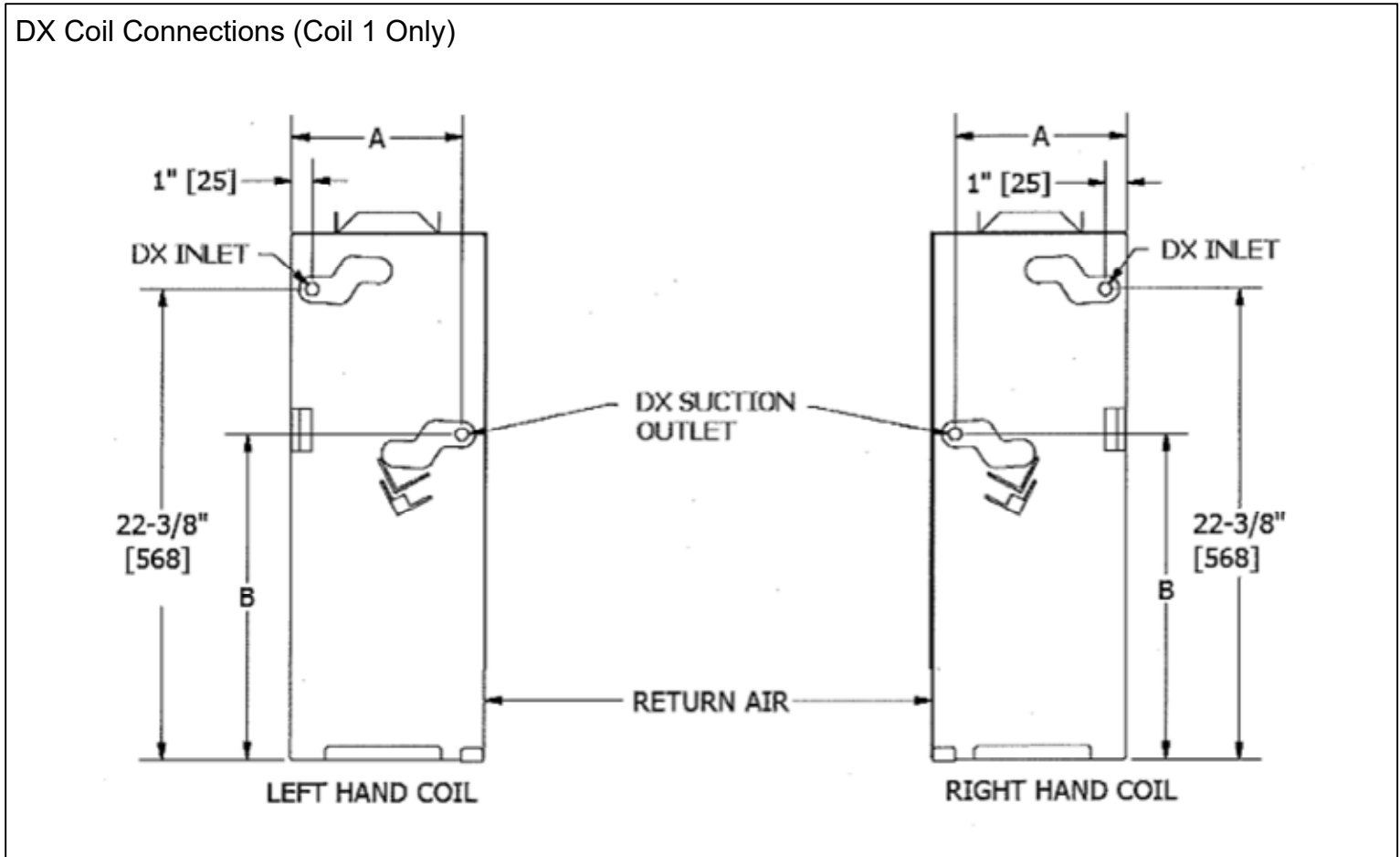
2- Pipe Steam Coil					
Coil #1	Dimension	1-Row Steam		2-Row Steam	
		inches	mm	inches	mm
	A	6.00	152	7.25	184
B	14.57	370	14.64	372	

NOTES:

1. See Coil Connection Table located on Page 20.

TVBF, DX Coil Connection

DX Coil Connections (Coil 1 Only)



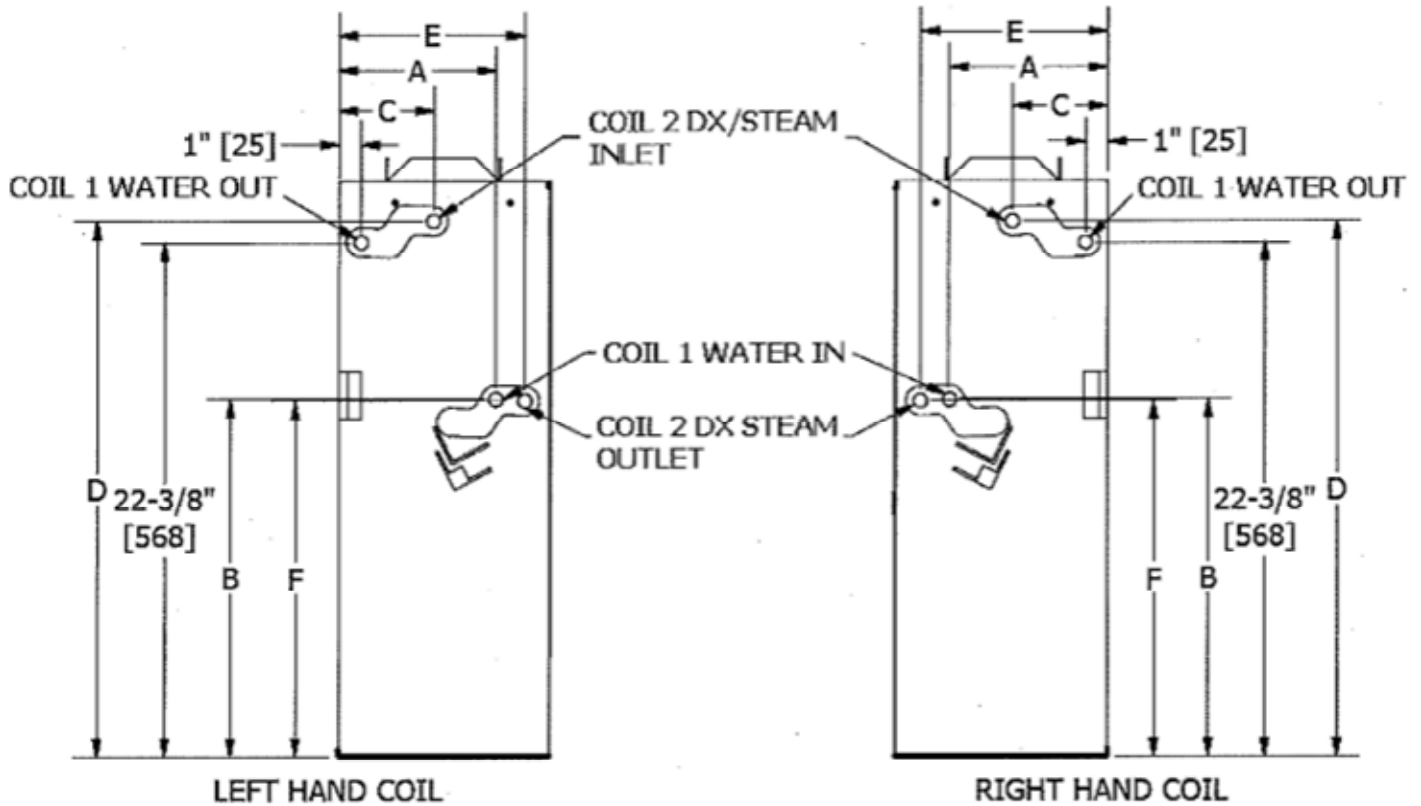
2- Pipe DX Coil							
Coil #1	Dimension	2-Row DX		3-Row DX		4-Row DX (See note #2)	
		inches	mm	inches	mm	inches	mm
	A	7.25	184	7.87	200	8.12	206
B	14.64	372	15.68	398	15.50	394	

NOTES:

1. See Coil Connection Table located on Page 20.
2. 4-Row coil not available with electric heat.

TVBF, Hydronic/ DX/ Steam Coil Connections (2 Coil Configuration)

Hydronic/ DX/ Steam Coil Connections (Coil 1 & Coil 2)



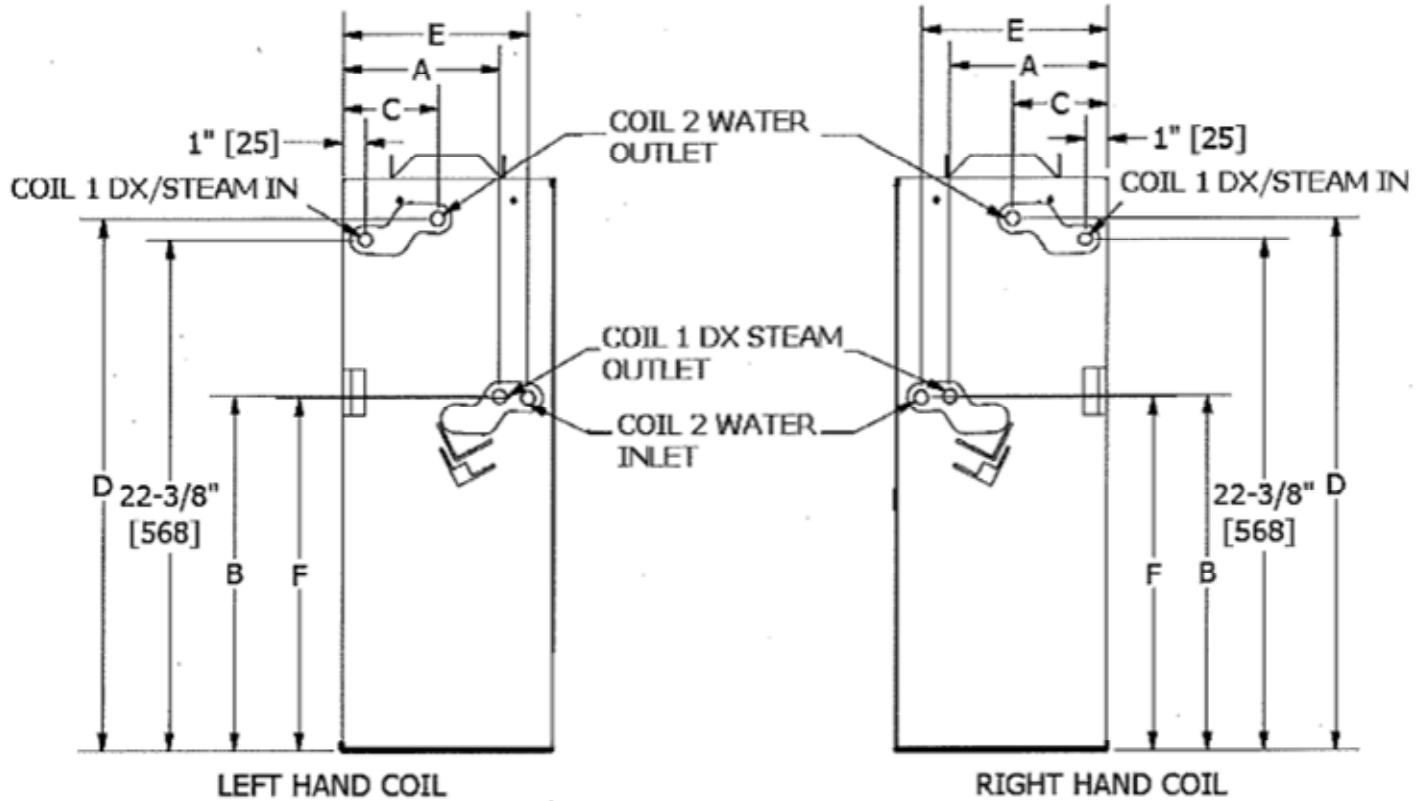
4-Pipe Hydronic/ DX/ Steam Coils											
Coil #1	Dimension	1-Row HW only		2-Row CW or HW		3-Row CW or HW					
		inches	mm	inches	mm	inches	mm				
	A	6.00	152	7.25	184	8.12	206				
	B	14.57	370	14.64	372	15.50	394				
Coil #2	Dimension	2-Row DX or Steam		3-Row DX		1-Row Steam		2-Row DX or Steam		1-Row Steam	
		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
	C	2.22	56	2.22	56	2.90	74	2.90	74	4.15	105
	D	22.30	566	22.30	566	23.35	593	23.35	593	23.28	591
	E	6.88	175	8.13	207	6.88	175	8.13	207	8.13	207
	F	15.55	395	15.45	391	15.55	395	15.45	391	15.45	391

NOTES:

1. See Coil Connection Table located on Page 20.

TVBF, DX/ Steam/ Hydronic Coil Connections (2 Coil Configuration)

DX/ Steam/ Hydronic Coil Connections (Coil 1 & Coil 2)



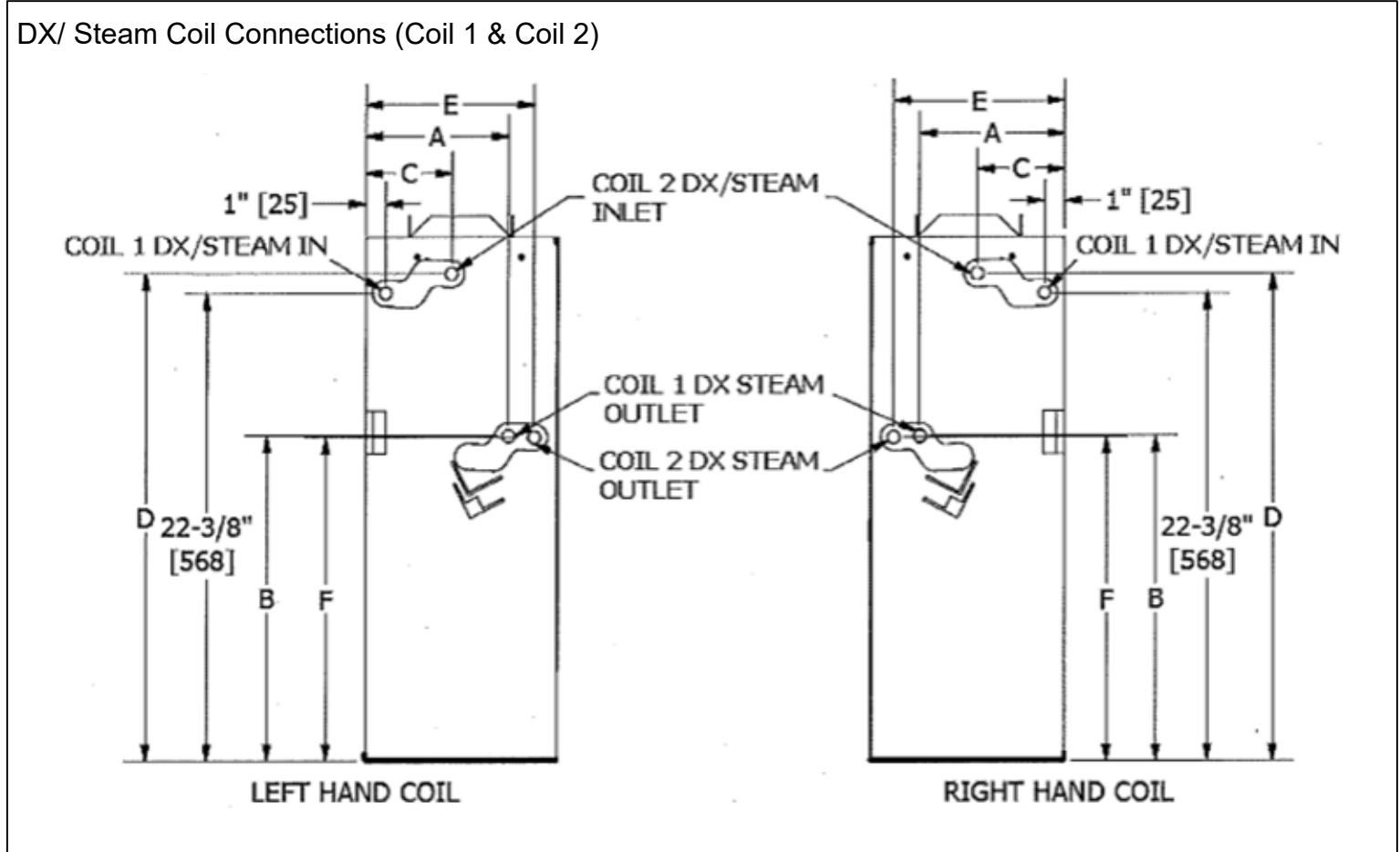
4-Pipe DX/ Steam/ Hydronic Coils												
Coil #1	Dimension	1-Row Steam		2-Row DX or Steam				3-Row DX				
		inches	mm	inches	mm	inches	mm					
	A	6.00	152	7.25	184	7.87	200					
	B	14.57	370	14.64	372	15.68	398					
Coil #2	Dimension	2-Row CW or HW		3-Row CW		1-Row HW		2-Row CW or HW		1-Row HW		
		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	
		C	2.22	56	2.22	56	2.90	74	2.90	74	4.15	105
		D	22.30	566	22.30	566	23.35	593	23.35	593	23.28	591
		E	6.88	175	8.13	207	6.88	175	8.13	207	8.13	207
	F	15.55	395	15.45	391	15.55	395	15.45	391	15.45	391	

NOTES:

1. See Coil Connection Table located on Page 20.

TVBF, DX/ Steam Coil Connections (2 Coil Configuration)

DX/ Steam Coil Connections (Coil 1 & Coil 2)



4-Pipe DX/ Steam Coils												
Coil #1	Dimension	1-Row Steam		2-Row DX or Steam		3-Row DX						
		inches	mm	inches	mm	inches	mm					
	A	6.00	152	7.25	184	7.87	200					
	B	14.57	370	14.64	372	15.68	398					
Coil #2	Dimension	2-Row DX or Steam		3-Row DX		1-Row Steam		2-Row DX or Steam		1-Row Steam		
		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	
		C	2.22	56	2.22	56	2.90	74	2.90	74	4.15	105
		D	22.30	566	22.30	566	23.35	593	23.35	593	23.28	591
		E	6.88	175	8.13	207	6.88	175	8.13	207	8.13	207
	F	15.55	395	15.45	391	15.55	395	15.45	391	15.45	391	

NOTES:

- See Coil Connection Table located on Page 20.

STANDARD FEATURES (Vertical Basic Fan Coils)

Construction

All Units

- AHRI Standard 440 certified and labeled
- Galvanized steel construction
- Insulation, elastomeric closed cell foam
- Integral filter rack with 1" throwaway filter

Concealed Units (TVBC)

- Top supply with duct collar

Exposed Units (TVBF & TVBA)

- Top stamped louver supply grille
- Durable powder coat paint
- End pockets with removable panels
- 18 gauge exterior panel construction
- Flat top (TVBF)
- Sloped top (TVBA)

Coils

- Cooling - 3 or 4 row chilled water or DX, heat pump compatible
- Heating - 1 or 2 row hot water or steam – reheat position
- 3/8" O.D. seamless copper tubes
- 0.012" tube wall thickness
- High efficiency aluminum fin surface for optimizing heat transfer, pressure drop and carryover
- Left or right hand, same or [opposite - TVB only] end connections
- Removable for service
- Manual air vents

Drain Pans

- Single wall, galvanized steel, externally insulated
- Double sloped to drain connection
- 3/4" M.P.T. auxiliary drain pan connection
- Double wall plastic auxiliary drip pan

Fan Assemblies

- Forward curved, DWDI centrifugal type
- 115 volt, single phase, three speed PSC motors
- Quick disconnect motor connections
- Removable for service

Electrical

- cETL listed for safety compliance
- Electrical junction box for field wiring terminations
- Terminal block for field connections

Electric Heat

- Finned tubular element on all floor mounted units protects against electrical shock
- ETL listed as an assembly for safety compliance
- Integral electric heat assembly with removable elements for easy service
- Automatic reset primary and back-up secondary thermal limits
- Single point power connection

OPTIONAL FEATURES (Vertical Basic Fan Coils)

Construction

All units

- Manual and motorized outside air dampers
- Spare 1" throwaway filters
- 1" pleated filters (MERV 8 and 13)
- Wall boxes
- Leveling legs

Concealed Units (TVBC)

- Wall recessing panels

Exposed Units (TVBF & TVBA)

- Linear bar discharge grille, powder coated
- 16 gauge front panel
- Return air louver grille
- 2" - 8" falsebacks
- Extended end pockets
- Tamper proof fasteners

Coils

- Automatic air vents
- Stainless steel coil casings
- 1/2" O.D. seamless copper tubes
- 0.016" tube wall thickness
- 0.025" tube wall thickness

Drain Pans

- Stainless steel construction with external insulation
- Double wall plastic auxiliary drain pan -- extended length
- Stainless steel auxiliary drain pan -- extended length

Fan Assemblies

- 208-230 & 277 volt, single phase, three speed PSC motors
- 115, 208-230 & 277 volt, single phase, three speed EC motors

Electrical

- SCR fan speed controller (High speed only)
- Fan relay packages
- Silent solid state fan relays
- Toggle disconnect switch
- Condensate overflow switch (auxiliary drain pan)
- Main fusing
- Unit and remote mounted three speed fan switches

Electric Heat

- Door interlocking disconnect switches
- Main fusing
- Silent relay/contactors

Piping Packages

- Factory assembled - shipped loose for field installation
- 1/2" and 3/4", 2 and 3-way normally closed, two position electric motorized valves
- Isolation ball valves with memory stop
- 4 pipe with 3-way valve
- Fixed and adjustable flow control devices
- Unions and P/T ports
- Modulating control valves
- High pressure close-off actuators (1/2" = 50 PSIG; 3/4" = 25 PSIG)

Thermostats

- Analog, digital display, or programmable
- Unit and remote mounted, with integral three speed fan switch
- 2 and 4-pipe control sequences
- Automatic and manual changeover