

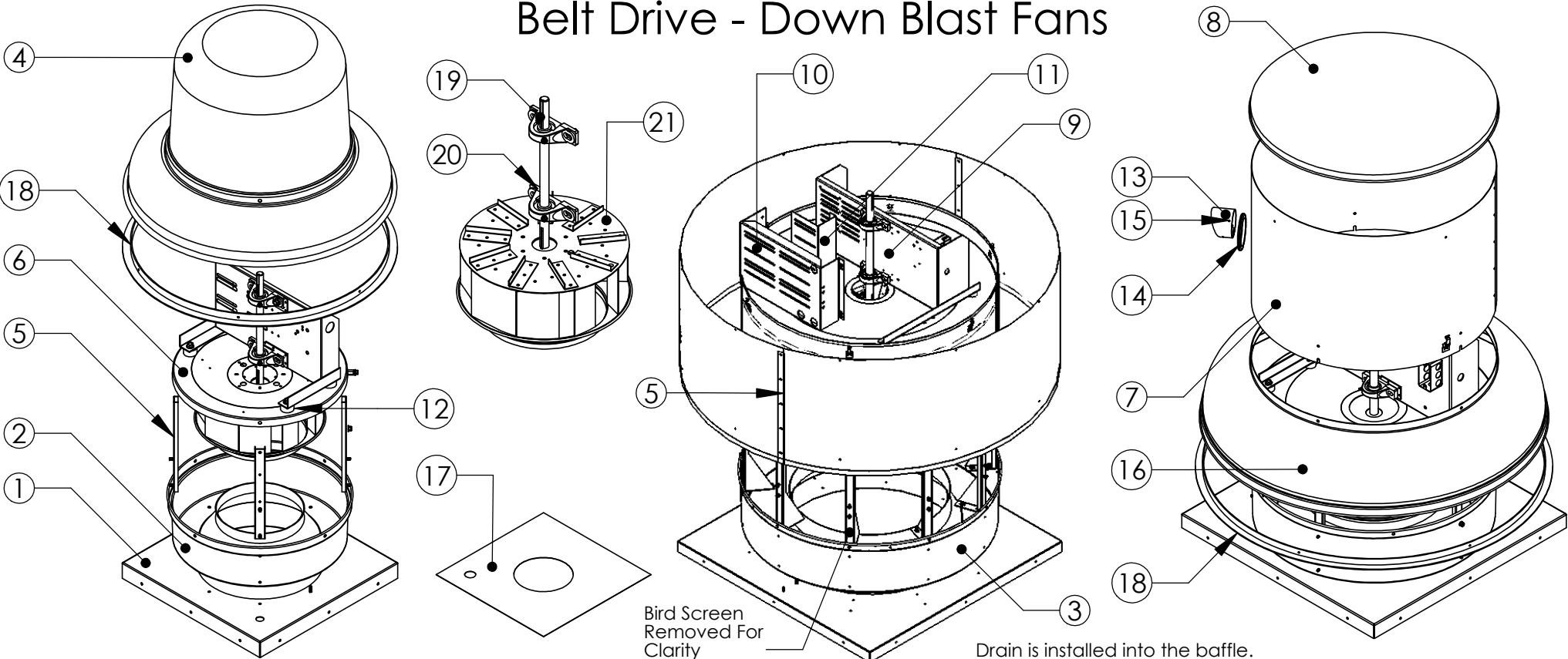
EXPLODED

VIEWS

DOWNBLAST

08/8/2016

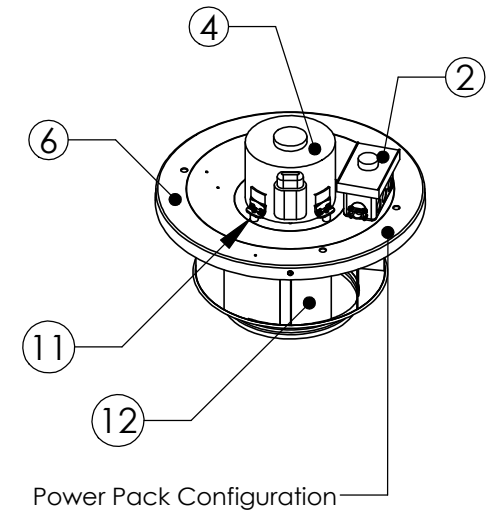
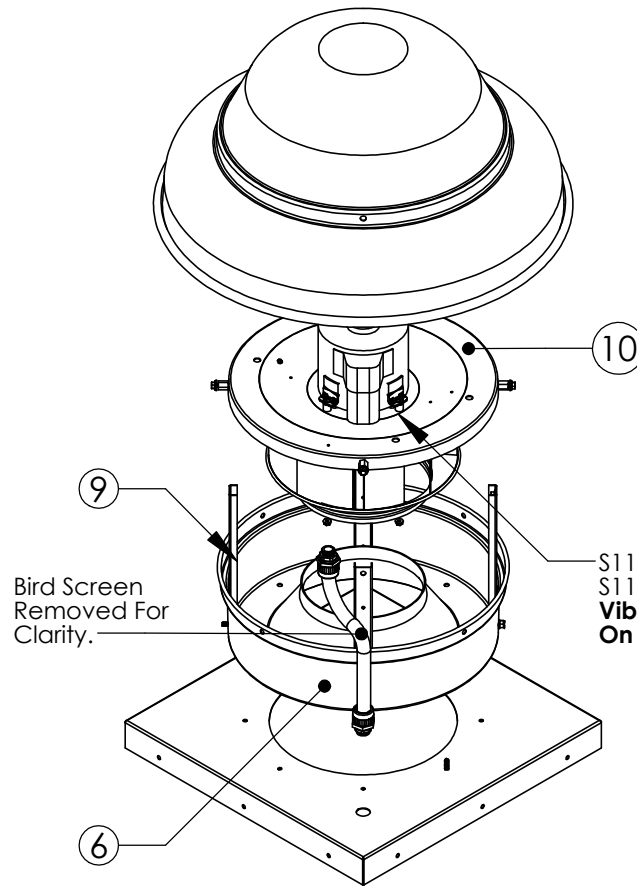
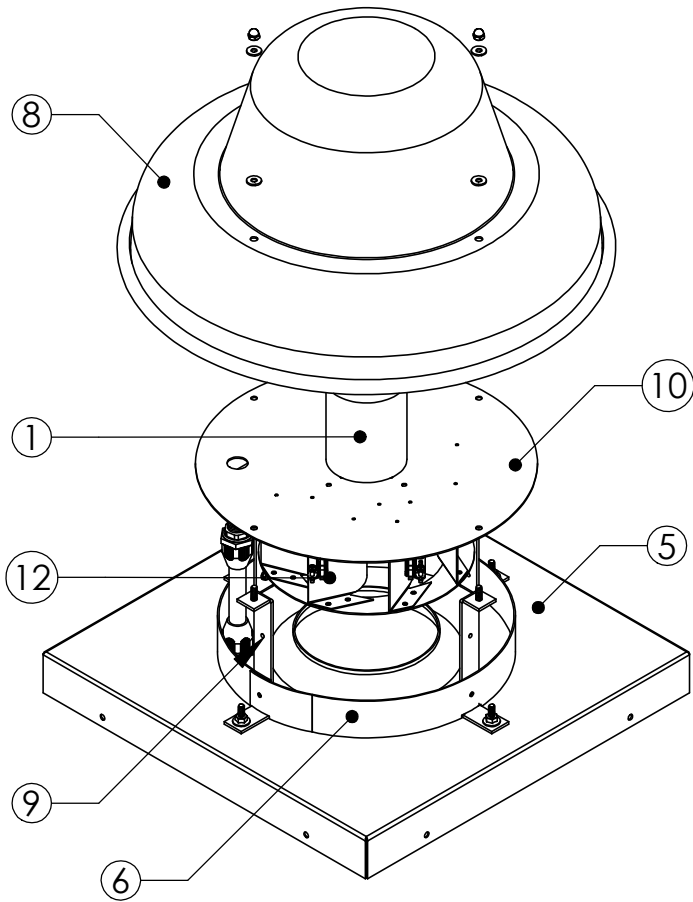
# Belt Drive - Down Blast Fans



The adapter plates and supports are used on standard applications and motors where larger motors require them per the BOM.

Belt Drive - Down Blast Fan - Part Information.																		
Item #	Description Of Parts	7, 8, 9 & 11	#	13	#	15	#	18	#	20	#	24	#	30	#	36	#	
1	Base Assembly	F8040011-S	1	F8040013-S	1	F8040015-S	1	F8040018-S	1	F8040020-S	1	F8040024-S	1	F8040030	1	F8040036	1	
2	Baffle	F5020011	1	F5020013	1	F5020015	1	F5020018	1	F5020020	1	F5020024	1	F5020030	1	F5020036	1	
3	Drain	F2100016	1	F2100017	1	F2100016	1	F2100016	1	F2100016	1	F2100016	1	F2100017	1	F2100017	1	
4	Hood Apron	F5210011	1	F5210013	1	F5210015	1	N/A										
5	Vertical Brace Assembly	F8030011-P	4	F8030013-P	4	F8030015-P	4	F8030018-P	5	F8030018-P	5	F8030024-P	5	F8030030-P	10	F8030036-M	10	
6	Top Plate	F5040011-S	1	F5040013-S	1	F5040015-S	1	F5040018-S	1	F5040018-S	1	F5040024-S	1	F5040030	1	F5040036	1	
7	Shaft Wrapper	N/A																
8	Pan Hood / Motor Cover	N/A							F2050018-S	1	F2050018-S	1	F2050024-S	1	F2050030-S	1	F2050036-S	1
9	Motor Plate Weldment	F8020011	1	F8020013	1	F8020015	1	F8020018	1	F8020018	1	F8020024	1	F8020030	1	F8020036	1	
10	Motor Plate Adapter	N/A		F2100008	1	F2100008	1	F2100018	1	F2100018	1	F2100007	1	F2100007	1	F2100036	1	
11	Adapter Support	N/A																
12	Vibration Isolator	800113-D40	4	800113-D40	4	800113-D40	4	800113-D40	4	800113-D40	4	800113	7	800113	7	800113	9	
13	Cooling Tube	N/A							F214BDCR	1	F214BDCR	1	F214BDCR	1	F214BDCR	1	F214BDCR	1
14	Cooling Tube Grommet	N/A							F2100001	1	F2100001	1	F2100001	1	F2100001	1	F2100001	1
15	Cotter Pin - Cooling Tube	N/A							800103	2	800103	2	800103	2	800103	2	800103	2
16	Bottom Skirt	N/A							F5170020	1	F5170020	1	F5170024	1	F5170030	1	F5170036	1
17	Cut Off Plate	F21000010 = 7 F21000011 = 8 F21000012 = 9	1	N/A														
18	Angle Ring (Miami Dade Option Only)	F237DB11	1	F237DB13	1	F237DB15	1	F2370020	1	F2370020	1	F2370024	1	F2370030	1	F2370036	1	
19a	Standard Wheel Shaft	F2180011	1	F2180013	1	F2180015	1	F21800181	1	F21800181	1	F2180024	1	F2180030	1	F2180036	1	
19b	HP Wheel Shaft	F2180013	1	F2180015	1	F2180016	1	F21800191	1	F21800191	1	F2180025	1	F2180031	1	F2180037	1	
20	Bearings	UCP204-12-AH-SP4	2	UCP204-12-AH-SP4	2	UCP204-12-AH-SP4	2	UCP205-16-AH-SP4	2	UCP205-16-AH-SP4	2	UCP205-16-AH-SP4	2	UCP206-19-AH-SP5	2	UCP206-19-AH-SP5	2	
21a	Standard Wheel Assembly	F8010011	1	F8010013	1	F8010015	1	F8010018	1	F8010020	1	F8010024	1	F8010030	1	F8010036	1	
21b	HP Wheel Assembly	F8010012	1	F8010014BHP	1	F8010016	1	F8010019	1	F8010021	1	F8010025	1	F8010031	1	F8010037	1	
22	Bird Screen	F2361425	1	F2360013	1	F2361475	1	SCR-18	1	SCR-18	1	SCR-24	1	SCR-30	1	SCR-36	1	

# Direct Drive - Down Blast Fans



S11 Isolator - DR25, 30 & 33  
 S11D70 Isolator - DR50, 75 & 85  
**Vibration Isolators Are Not Used  
 On Wall Mount Application.**

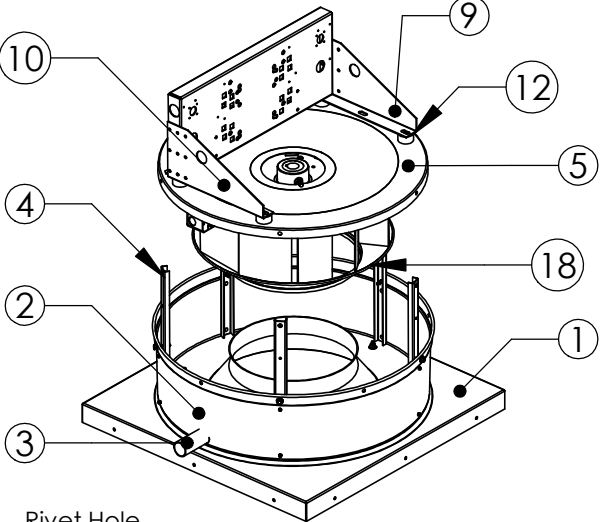
Direct Drive - Motor - Part Information.

Item #	Description Of Parts	DR10	#	DR12	#	DR25	#	DR30	#	DR33	#	DR50	#	DR75	#	DR85	#
1	Motor Single Phase	8550	1	8550A	1	6312R	1	6245R	1	6310R	1	6311R	1	6241R	1	6251R2	1
2	Speed Control	KBWC-16K	1	KBWC-16K	1	KBWC-16K	1	KBWC-16K	1	KBWC-16K	1	KBWC-110K	1	KBWC-115K	1	KBWC-115K	1
3	Wire Harness	810040E	1	810040E	1	810040D	1	810040D	1	810040D	1	810040D	1	810040D	1	810040D	1
4	Motor Three Phase (VFD Only)	N/A														6319R	1

Direct Drive - Down Blast Fan - Part Information.

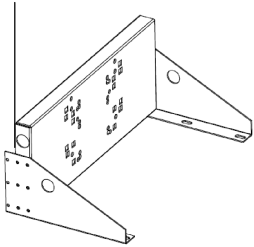
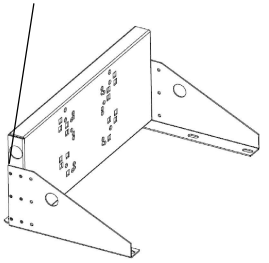
Item #	Description Of Parts	DR10	#	DR12	#	DR25	#	DR30	#	DR33	#	DR50	#	DR75	#	DR85	#
5	Base Assembly	F8041508-S	1	F8041516-S	1	F8040011-S	1	F8040011-S	1	F8040011-S	1	F8040013-S	1	F8040015-S	1	F8040015-S	1
6	Baffle	F2021508	1	F5021416	1	F5020011	1	F5020011	1	F5020011	1	F5020013	1	F5020015	1	F5020015	1
7	Drain	N/A		N/A		F2100016	1	F2100016	1	F2100016	1	F2100017	1	F2100016	1	F2100016	1
8	Hood Apron	F5211408	1	F5211416	1	F5211425	1	F5211425	1	F5211425	1	F5211450	1	F5211475	1	F5211475	1
9	Vertical Brace Assembly	F8031508-S	4	F8031516-S	4	F8030011-P	4	F8030011-P	4	F8030011-P	4	F8030013-P	4	F8030015-P	4	F8030015-P	4
10	Top Plate	F2041508-S	1	F5041516-S	1	F5040011-S	1	F5040011-S	1	F5040011-S	1	F5040013-S	1	F5040015-S	1	F5040015-S	1
11	Vibration Isolator	N/A		N/A		S11	4	S11	4	S11	4	S11D70	4	S11D70	4	S11D70	4
12	Standard Wheel Assembly	F8011508	1	F8011516	1	F8010010	1	F8010010	1	F8010010	1	F8010014	1	F8010017	1	F8010017	1
13	Bird Screen	F2361508	1	F2361516	1	F2361425	1	F2361425	1	F2361425	1	F2360013	1	F2361475	1	F2361475	1

# Direct Drive - Down Blast Fans



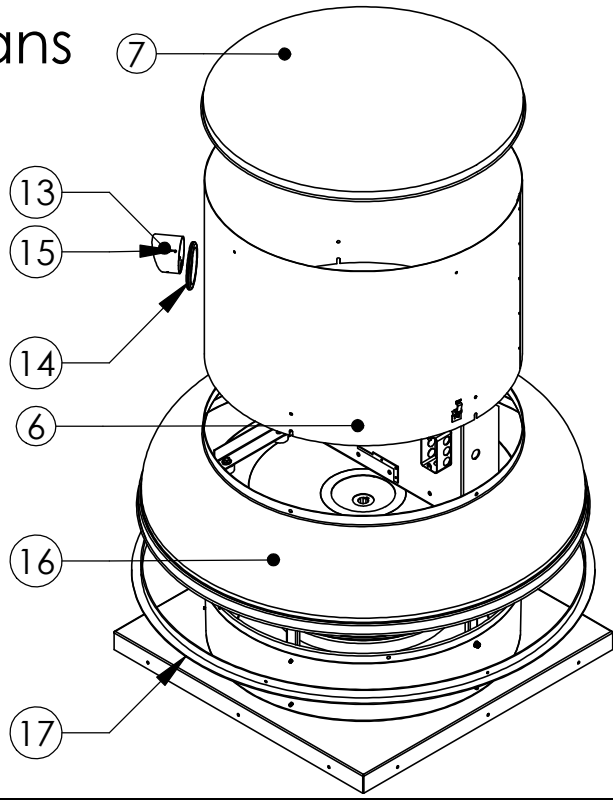
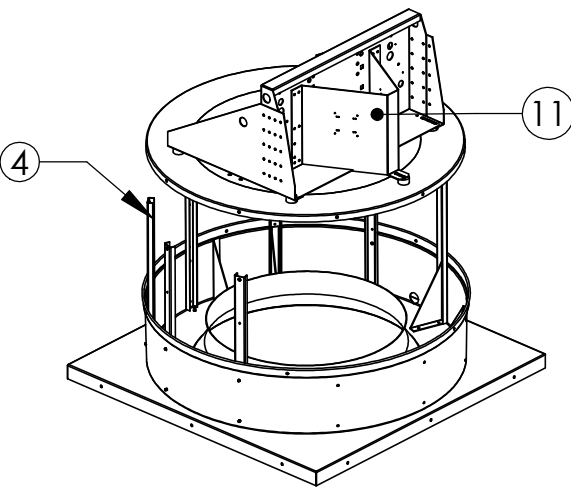
Rivet Hole Location

Rivet Hole Location



Configuration A

Configuration B



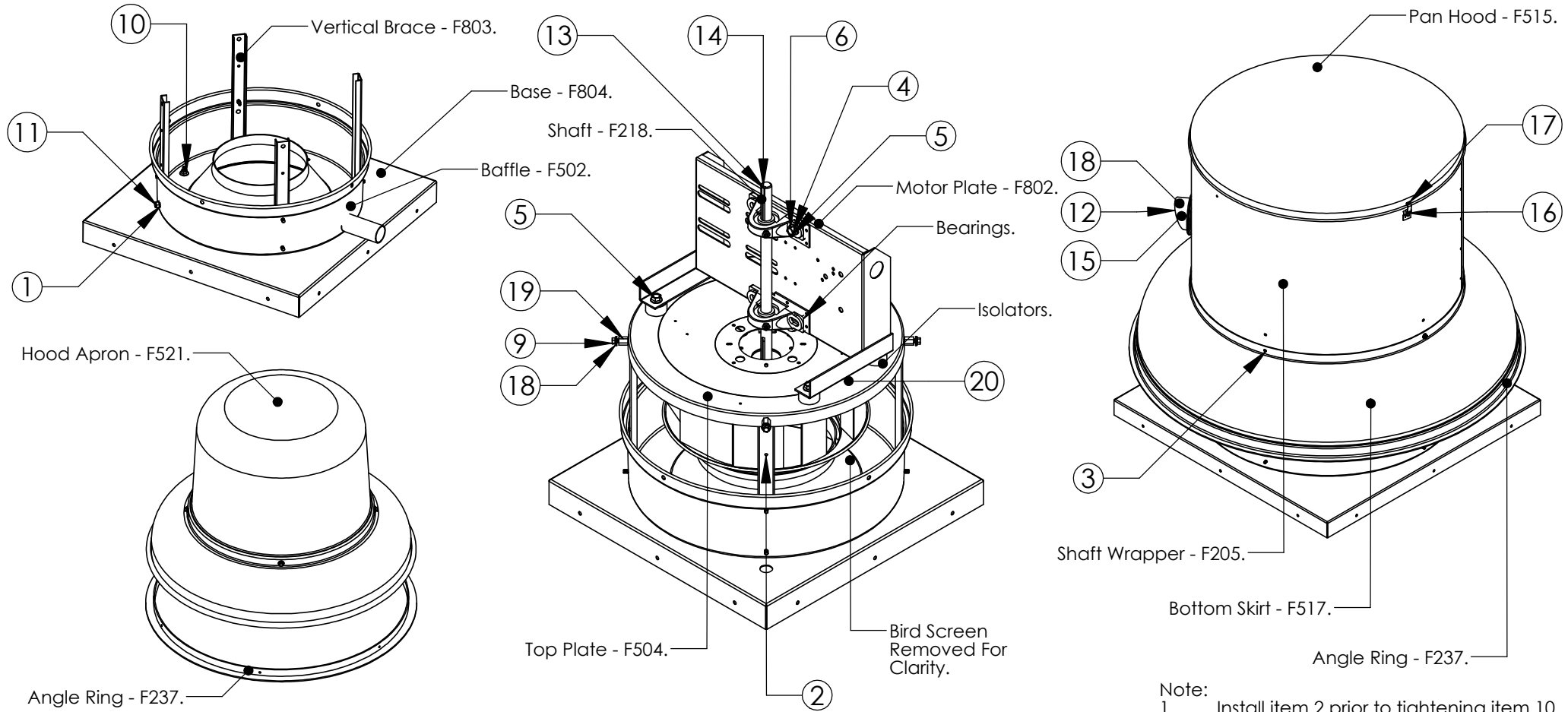
DU/DR180-360 Motor Configuration				
Fan Model	Motor Frame Size	Wheel Part Number	Motor Plate Assembly	Motor Plate Configuration
180	56 / 145T / 182T	F8010018DUDR-SF / F8010018DUDR-SF / F8010018DUDR	F20890018DD-B / F20890018DD-B / F20890018DD-A	B / B / A
200	56 / 145T / 182T	F8010020DUDR-SF / F8010020DUDR-SF / F8010020CASREDD	F20890020DD-B / F20890020DD-B / F20890020DD-A	B / B / A
240	184T / 215T	F8010024DUDR / F8010024CASREDD	F20890024DD-B / F20890024DD-A	B / A
300	215T / 254T	F8010030DUDR / F8010030DUDRL	F20890036DD-B / F20890036DD-A	B / A
360	215T / 254T	F8010036DUDR / F8010036DUDRL	F20890036DD-B / F20890036DD-A	B / A

The adapter plates and supports are used on standard applications and motors where larger motors require them per the BOM.

## Direct Drive - Down Blast Fan - Part Information.

Item #	Description Of Parts	DR180	#	DR200	#	DR240	#	DR300	#	DR360	#	
1	Base Assembly	F8040018-S	1	F8040020-S	1	F8040024-S	1	F8040030	1	F8040036	1	
2	Baffle	F5020018	1	F5020020	1	F5020024	1	F5020030	1	F5020036	1	
3	Drain	F2100016	1	F2100016	1	F2100016	1	F2100017	1	F2100017	1	
4	Vertical Brace Assembly	F8030018-P	5	F8030018-P	5	F8030024-P	5	F8030030-P	10	F8030036-M	10	
5	Top Plate	F5040018-S	1	F5040018-S	1	F5040024-S	1	F5040030	1	F5040036	1	
6	Shaft Wrapper	F2050018-S	1	F2050018-S	1	F2050024-S	1	F2050030-S	1	F2050036-S	1	
7	Pan Hood / Motor Cover	F5150018-S	1	F5150018-S	1	F5150024-S	1	F5150030-S	1	F5150036-S	1	
8	Motor Plate	F2090018DD	1	F2090020DD	1	F2090024DD	1	F2090036DD	1	F2090036DD	1	
9	Motor Plate Angle Right	F2080018DDR	1	F2080018DDR	1	F2080024DDR	1	F2080036DDR	1	F2080036DDR	1	
10	Motor Plate Angle Left	F2080018DDL	1	F2080018DDL	1	F2080024DDL	1	F2080036DDL	1	F2080036DDL	1	
11	Motor Plate Support	N/A			F2090024DSDUP			1	F2090036DSDUP	1	F2090036DSDUP	1
12	Vibration Isolator	800113-D40	4	800113-D40	4	800113	7	800113	7	800113	7	
13	Cooling Tube	F214BDCR	1	F214BDCR	1	F214BDCR	1	F214BDCR	1	F214BDCR	1	
14	Cooling Tube Grommet	F2100001	1	F2100001	1	F2100001	1	F2100001	1	F2100001	1	
15	Cotter Pin - Cooling Tube	800103	2	800103	2	800103	2	800103	2	800103	2	
16	Bottom Skirt	F5170020	1	F5170020	1	F5170024	1	F5170030	1	F5170036	1	
17	Angle Ring (Miami Dade Option Only)	F2370020	1	F2370020	1	F2370024	1	F2370030	1	F2370036	1	
18a	Wheel Assembly (small frame motor)	F8010018DUDR-SF	1	F8010020DUDR-SF	1	F8010024DUDR	1	F8010030DUDR	1	F8010036DUDR	1	
18b	Wheel Assembly (large frame motor)	F8010018DUDR	1	F8010020CASREDD	1	F8010024CASREDD	1	F8010030DUDRL	1	F8010036DUDRL	1	

# Belt Drive - Down Blast - Hardware

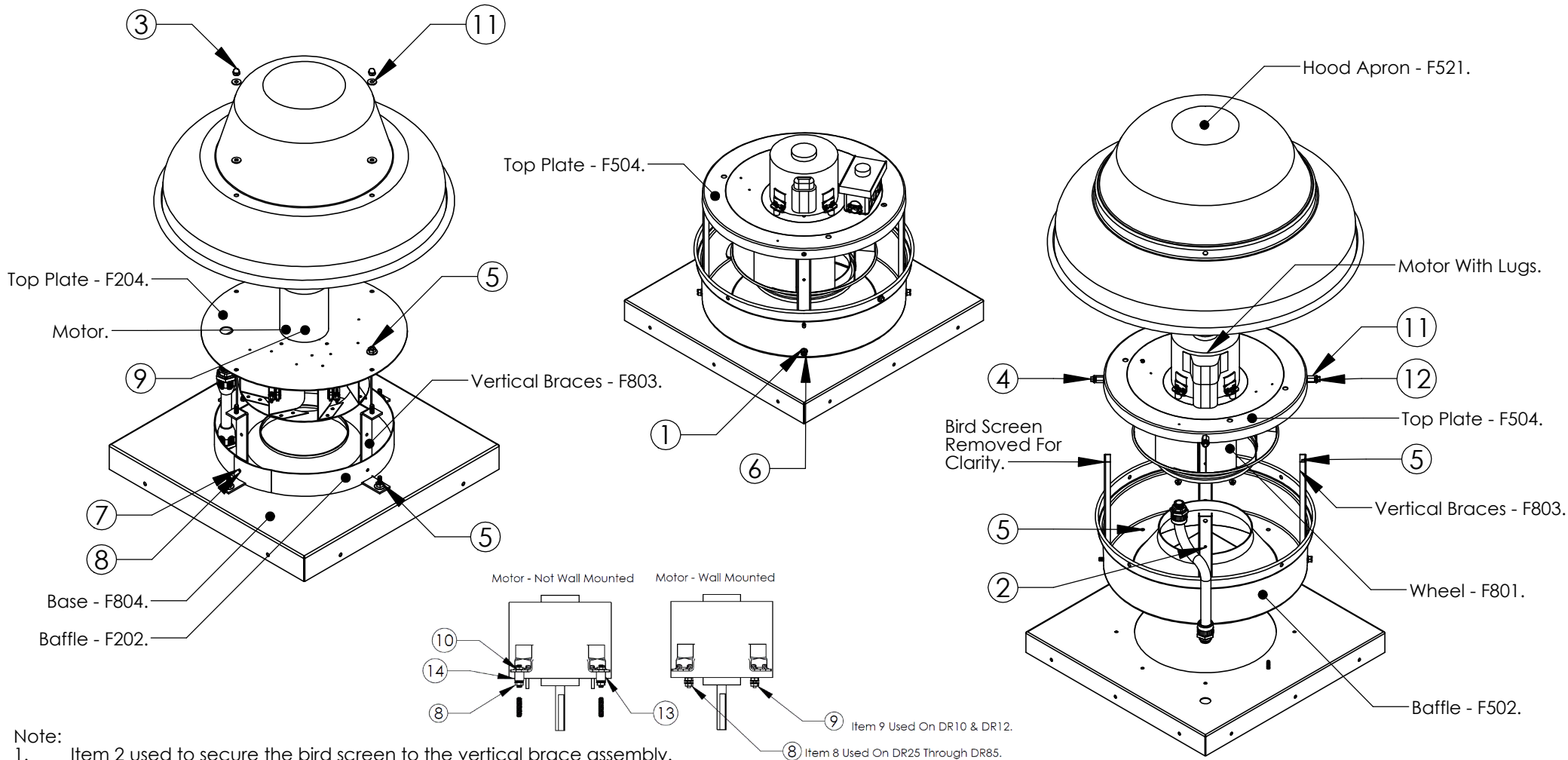


Note:  
1. Install item 2 prior to tightening item 10.

Hardware - Down Blast Fan Belt Drive - Part Information.

Item #	Description Of Parts	7, 8, 9 & 11	#	13	#	15	#	18	#	20	#	24	#	30	#	36	#
1	White Nylon Washer	800014	8	800014	8	800014	8	800014	10	800014	10	800014	10	800014	20	800014	20
2	1/4-14 x 1.25 Self Drilling /Rbr Washer			N/A				800023B	10	800023B	15	800023B	20	800023B	30	800023B	30
3	1/4 - 20 x 5/8 Pan Head Whiz Screw			N/A				800026	5	800026	5	800026	5	800026	10	800026	10
4	3/8 - 16 x 1 1/2 Whiz Bolt Grade 5	N/A		800025	4	800025	4	800025	4	800025	4	800025	4	800025	4	800025	4
4	1/2 - 13 x 1 1/2 Whiz Bolt Grade 5							N/A						A0005710	4	A0005710	4
5	3/8 - 16 Whiz Nut	800032	8	800032	12	800032	12	800032	12	800032	12	800032	14	800032	14	800032	18
5	1/2 - 13 Whiz Nut							N/A						A0005693	4	A0005693	4
6	3/8 - 16 x 1 3/4 Carriage Bolt	800042	4					N/A									
7	5/16 - 18 x 1 1/2 Whiz Bolt Grade 5	800043	4	800043	4	800043	4	800043	4	800043	4	800043	4	800043	4	800043	4
8	5/16 - 18 Whiz Nut	800033	4	800033	4	800033	4	800033	4	800033	4	800033	4	800033	4	800033	4
9	1/4 - 20 x 1/2 Whiz Bolt	800048	4	800048	4	800048	4					N/A					
10	1/4 - 20 Whiz Nut	800034	12	800034	12	800034	12	800034	15	800034	15	800034	15	800034	21	800034	21
11	1/4 - 20 Nylon Lock Nut	800031	8	800031	8	800031	8	800031	10	800031	10	800031	10	800031	20	800031	20
12	Cotter Pin			N/A				800103	2	800103	2	800103	2	800103	2	800103	2
13	3/16 x 3/16 x 1 1/4 Key	800104	2	800104	2	800104	2					N/A					
14	1/4 x 1/4 x 2 1/4 Key			N/A				800108	2	800108	2	800108	2	800108	2	800108	2
15	Heyco Bushing			N/A				810068	2	810068	2	810068	2	810068	2	810068	2
16	3/16 Rivet			N/A				800070A	14	800070A	14	800070A	14	800070A	15	800070A	15
17	Ludwig A - 17 Hood Clip			N/A				800107	4	800107	4	800107	4	800107	4	800107	6
18	Washer 1/4 ID x 5/8 OD	800011	4	800011	4	800011	4					N/A					
19	1/4 - 20 Hex Head Stand Off	620099	4	620099	4	620099	4					N/A					
20	Washer 3/8 ID x 1 OD							N/A								1133008	4

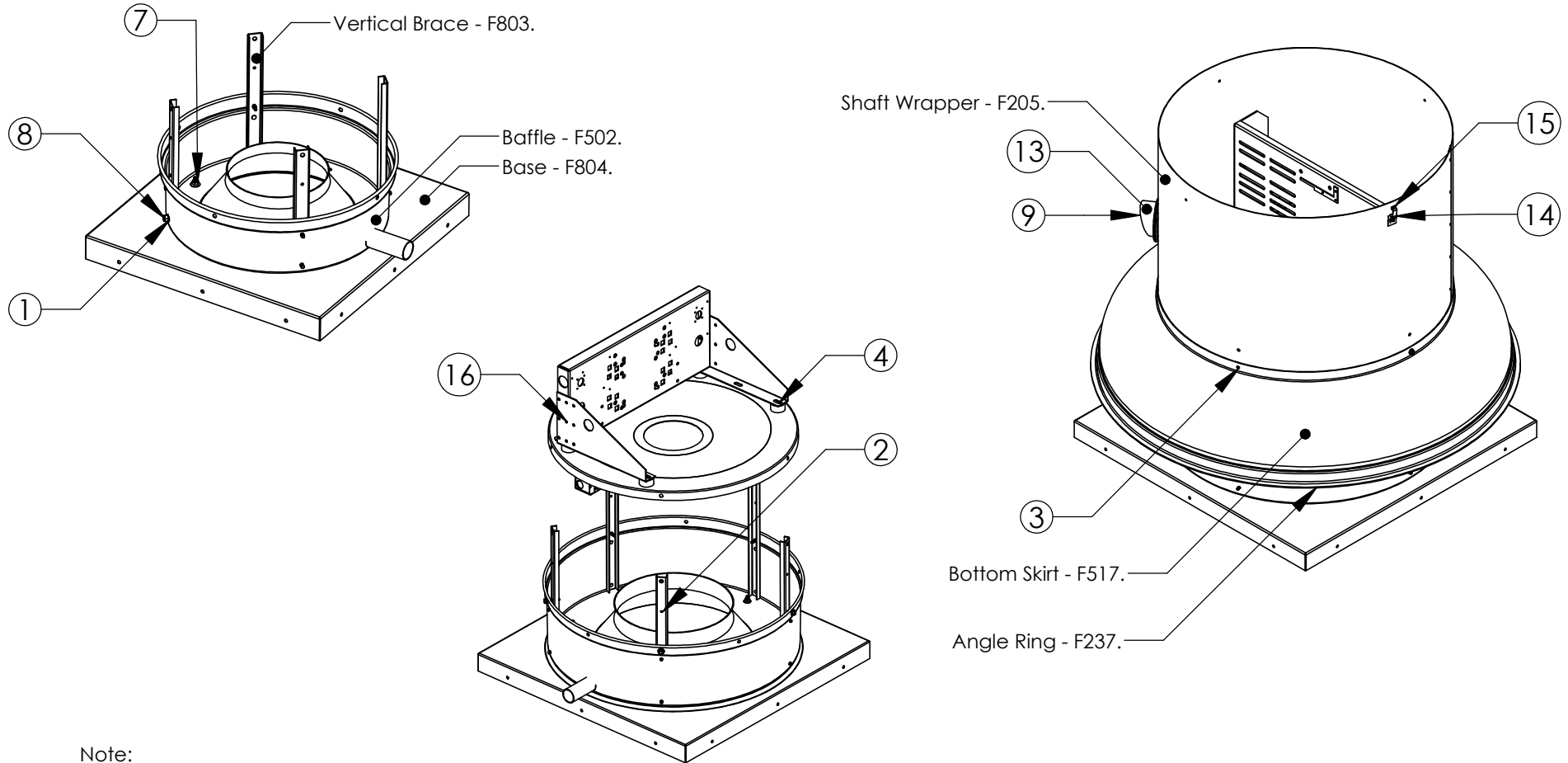
# Direct Drive - Down Blast - Hardware



Hardware - Down Blast Fan Direct Drive - Part Information.

Item #	Description Of Parts	DR10	#	DR12	#	DR25	#	DR30	#	DR33	#	DR50	#	DR75	#	DR85	#
1	White Nylon Washer		N/A			800014	8	800014	8	800014	8	800014	8	800014	8	800014	8
2	1/4 - 14 x 1.25 Self Drilling / Rubber Washer	800023B	4	800023B	8	800023B	4	800023B	4	800023B	4	800023B	4	800023B	4	800023B	4
3	1/4 - 20 Acorn Nuts	800035	4							N/A							
4	1/4 - 20 x 1/2 Whiz Bolt	N/A		800048	4	800048	4	800048	4	800048	4	800048	4	800048	4	800048	4
5	1/4 - 20 Whiz Nut	800034	8	800034	4	800034	12	800034	12	800034	12	800034	12	800034	12	800034	12
6	1/4 - 20 Nylon Lock Nut		N/A			800031	8	800031	8	800031	8	800031	8	800031	8	800031	8
7	10 - 32 x 1/2 Whiz Bolt Grade 5	800041	8	800041	8	800041	4	800041	4	800041	4	800041	4	800041	4	800041	4
8	10 - 32 Whiz Nut	800030	8	800030	4	800030	8	800030	8	800030	8	800030	8	800030	8	800030	8
9	8 - 32 Whiz Nut	800036	8	800036	8												
10	10 - 32 Lock Nut / Washer		N/A			90675A195	4	90675A195	4	90675A195	4	90675A195	4	90675A195	4	90675A195	4
11	Washer 1/4 ID x 5/8 OD	800011	4	800011	4	800011	8	800011	8	800011	8	800011	8	800011	8	800011	8
12	1/4 - 20 Hex Head Stand Off	N/A		620099	4	620099	4	620099	4	620099	4	620099	4	620099	4	620099	4
13	S11 Isolator		N/A			S11	4	S11	4	S11	4						
14	S11D70 Isolator					N/A						S11D70	4	S11D70	4	S11D70	4

# Direct Drive - Down Blast - Hardware



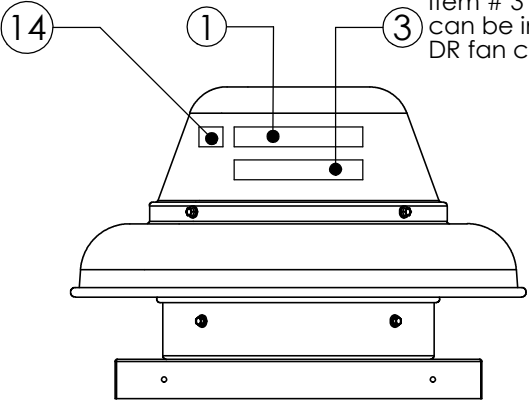
Note:  
1. Install item 2 prior to tightening item 7.

\* Used on Larger Framed Motors (Only one key per configuration)

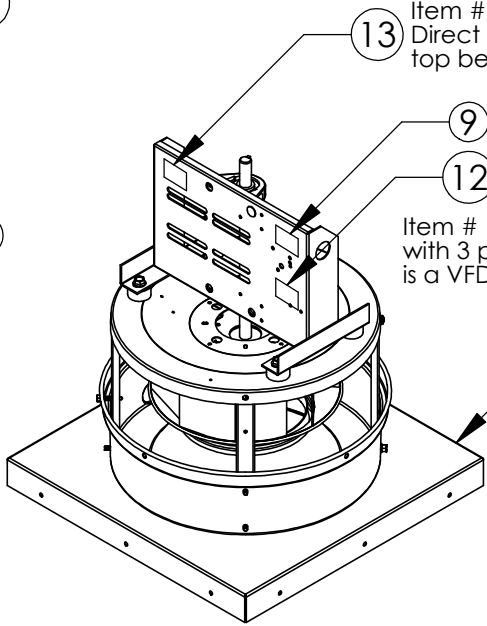
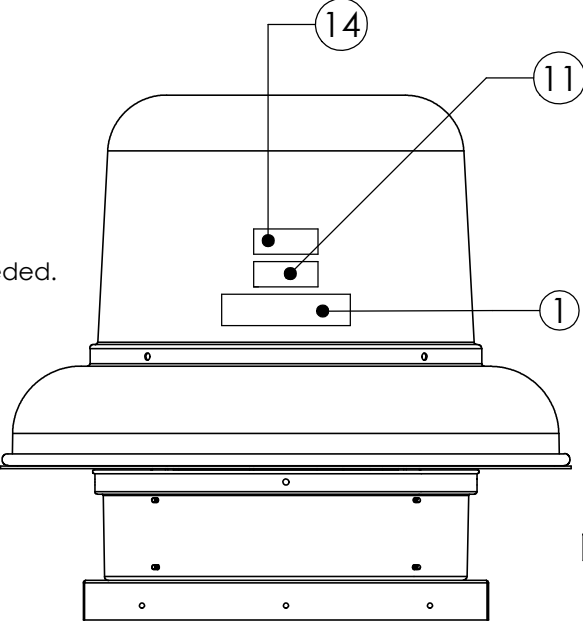
Hardware - Down Blast Fan Direct Drive - Part Information.

Item #	Description Of Parts	DR180	#	DR200	#	DR240	#	DR300	#	DR360	#
1	White Nylon Washer	800014	10	800014	10	800014	10	800014	20	800014	20
2	1/4-14 x 1.25 Self Drilling /Rbr Washer	800023B	10	800023B	15	800023B	20	800023B	30	800023B	30
3	1/4 - 20 x 5/8 Pan Head Whiz Screw	800026	5	800026	5	800026	5	800026	10	800026	10
4	3/8 - 16 Whiz Nut	800032	12	800032	12	800032	14	800032	14	800032	18
4	1/2 - 13 Whiz Nut	N/A						A0005693	5	A0005693	5
5	5/16 - 18 x 1 1/2 Whiz Bolt Grade 5	800043	10	800043	10	800043	10	800043	10	800043	10
6	5/16 - 18 Whiz Nut	800033	10	800033	10	800033	10	800033	10	800033	10
7	10-32 x 1/2 Whiz Bolt Grade 5	800034	15	800034	15	800034	15	800034	21	800034	21
8	1/4 - 20 Nylon Lock Nut	800031	10	800031	10	800031	10	800031	20	800031	20
9	Cotter Pin	800103	2	800103	2	800103	2	800103	2	800103	2
10	3/16 x 3/16 x 1 1/4 Key	800104	1	800104	1	N/A					
11	1/4 x 1/4 x 2 1/4 Key	800108*	1	800108*	1	800108	1	N/A			
12	5/16 x 5/16 x 2" Key	N/A						800114	1	800114	1
13	Heyco Bushing	810068	2	810068	2	810068	2	810068	2	810068	2
14	3/16 Rivet	800070A	14	800070A	14	800070A	14	800070A	15	800070A	15
15	Ludwig A - 17 Hood Clip	800107	4	800107	4	800107	4	800107	4	800107	6
16	SSPI Rivet	SSPI-08-06-RIVET	12	SSPI-08-06-RIVET	12	SSPI-08-06-RIVET	22	SSPI-08-06-RIVET	32	SSPI-08-06-RIVET	32

# Down Blast - Label Locations



Item # 3 - ETL label can be installed on DR fan cover as needed.

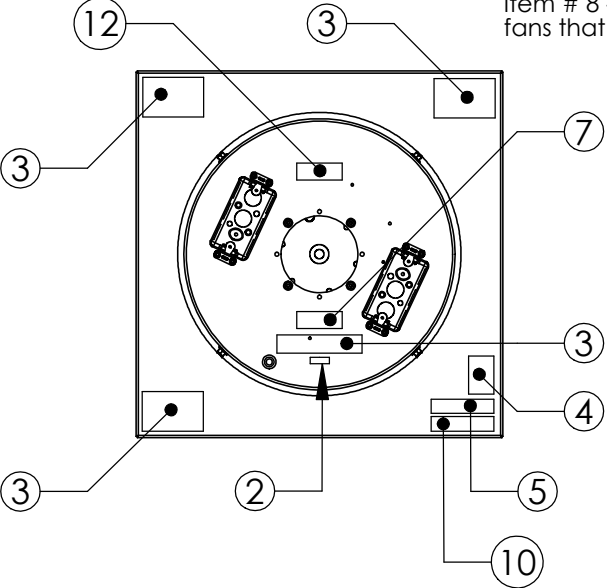


Item # 13 - Not Used On Direct Drive. Installed by top bearings.

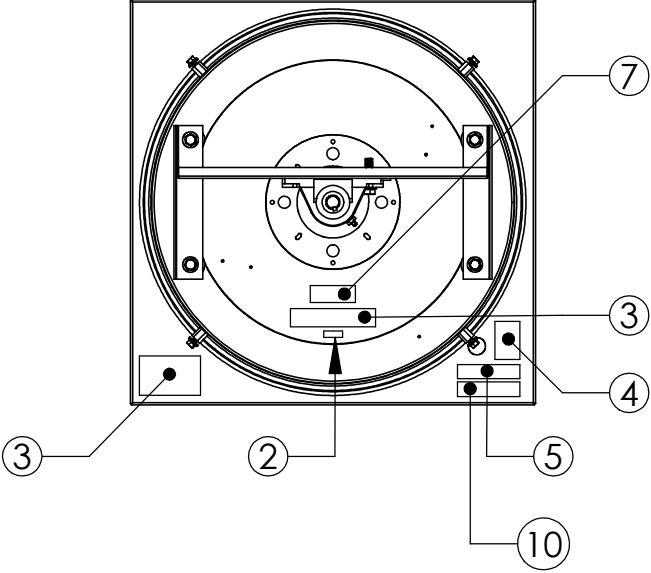
Item # 9 - Not Used On Direct Drive.

Item # 12 - Used on all fans with 3 phase motors, unless there is a VFD mounted in the fan.

Item # 6 - Installed Opposite Side Of Drain.



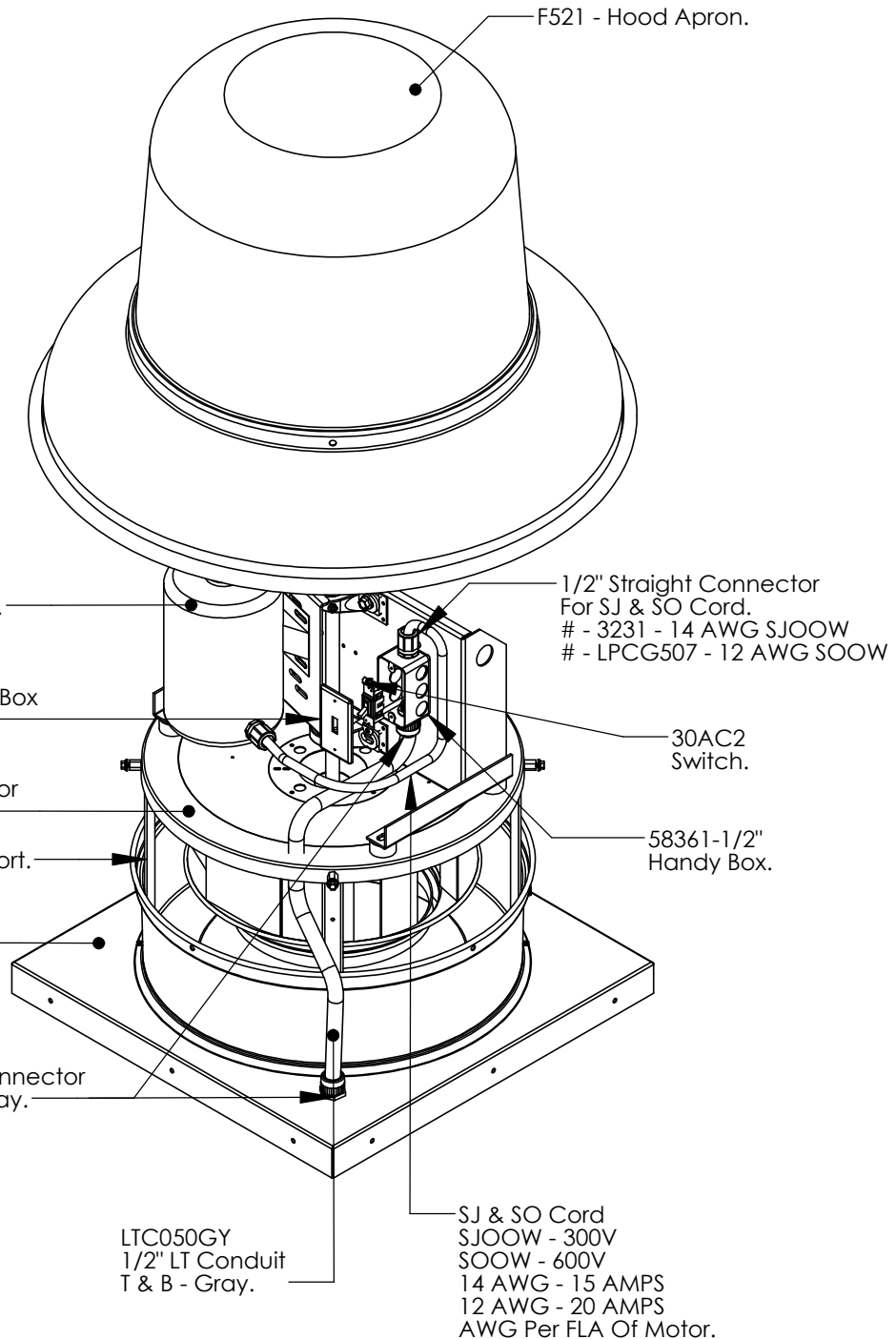
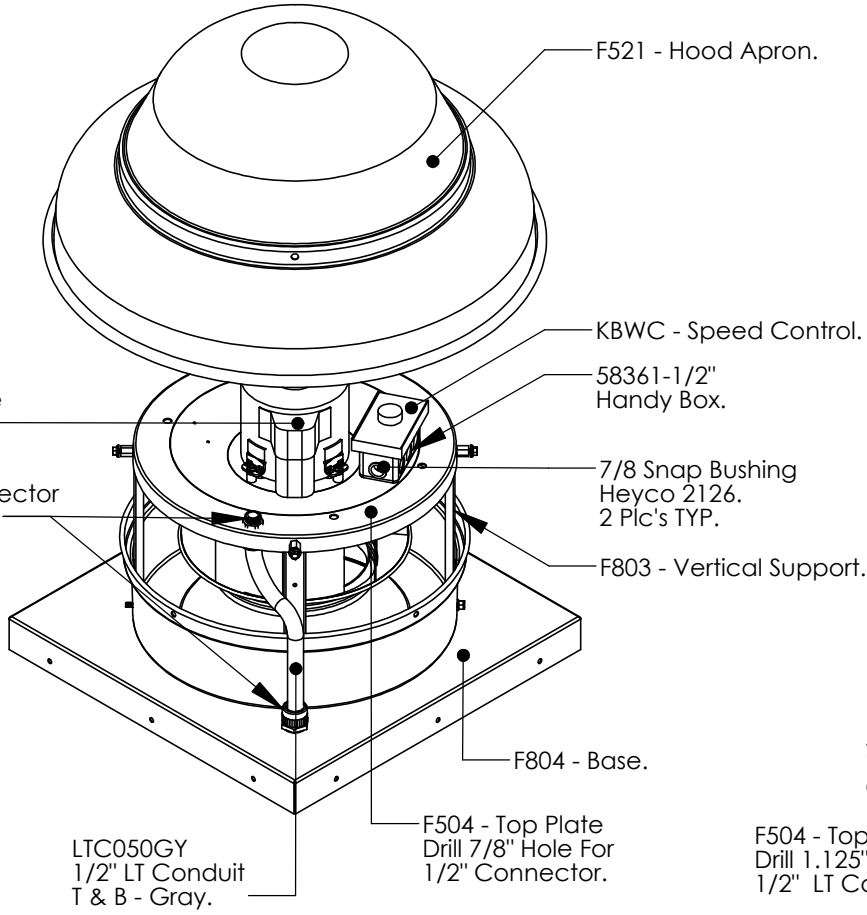
Item # 8 - Not used on fans that rotate CCW.



Labels - Up Blast Fan - Part Information.		
Item #	Description Of Parts	#
1	Name Brand Label	1
2	Voltage & Phase Label	1
3	ETL Label	2
4	AMCA Air & Sound	1
5	QC Passed Label	1
6	Hinge Kit Label	1
7	Rotation Label CCW	1
9	Belt Size Label	1
10	Wall Mount Label	1
11	Loose Items Label	1
12	ATTENTION ! VFD Label	1
13	Bearing Grease Label	1
14	Disconnect Switch Label	1



# Direct & Belt Drive - Down Blast - Electrical Components

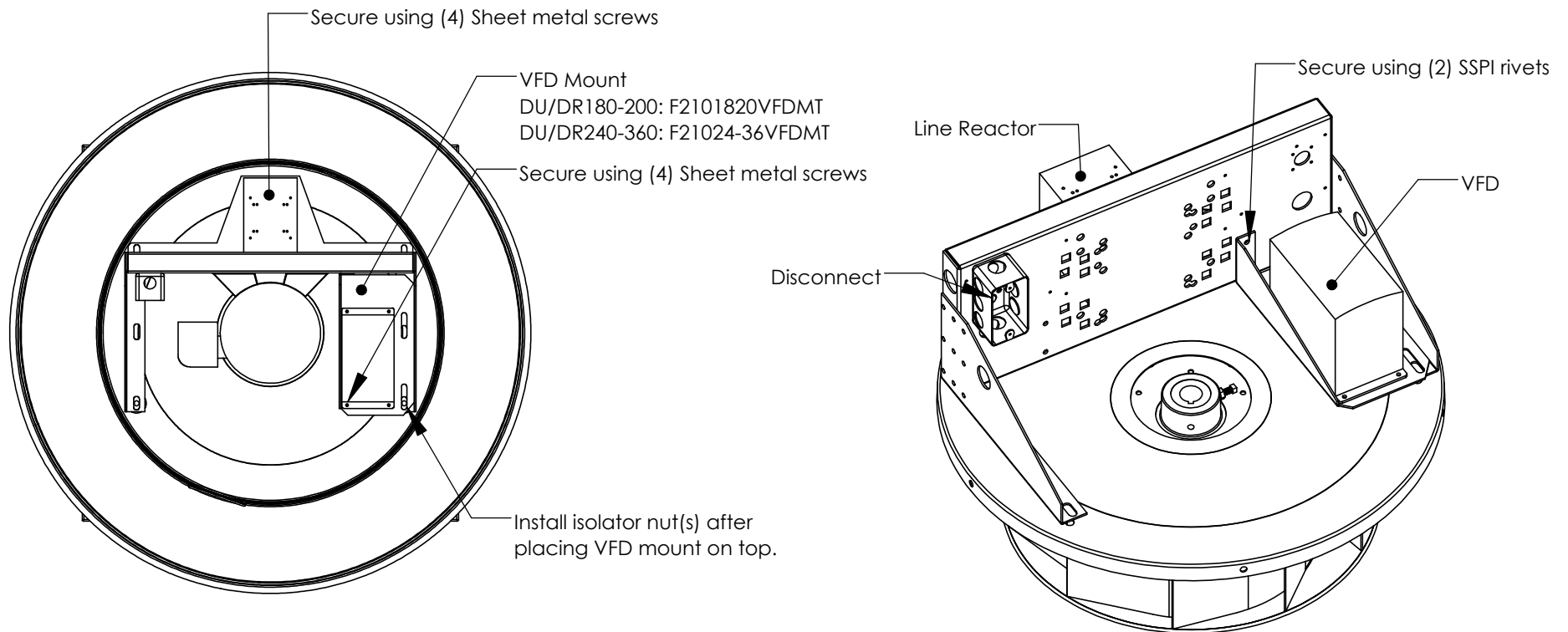


Speed Control Information.

Fan Size	Speed Control	AMPS	Min Voltage Under Load	Phase
DR 10H	KBWC-16K	6	65 VAC	1
DR 12H	KBWC-16K	6	65 VAC	1
DR25H	KBWC-16K	6	65 VAC	1
DR30H	KBWC-16K	6	65 VAC	1
DR33H	KBWC-16K	6	65 VAC	1
DR50H	KBWC-110K	10	65 VAC	1
DR75H	KBWC-110K	10	65 VAC	1
DR85H	KBWC-115K	15	65 VAC	1

SJ & SO Cord  
 SJOOW - 300V  
 SOOW - 600V  
 14 AWG - 15 AMPS  
 12 AWG - 20 AMPS  
 AWG Per FLA Of Motor.

# Down Blast - VFD Mount Option



## VFD Mount Option Instructions

1. Place VFD Plate onto bottom flange of the right side motor plate support (Remove isolator nuts if installed).
2. Use (2) SSPI Rivets to secure the VFD plate to the motor plate.
3. Install the isolator nut(s) onto the isolator(s).
4. Place VFD onto the VFD plate aligning the holes in the VFD with the .130" holes in the VFD plate.
5. Install (4) self tapping sheet metal screws.
6. Place line reactor onto motor plate F20900XXDD or F20900XXSUPDD and secure using (4) self tapping sheet metal screws.
7. Wire from disconnect to line reactor using liquid tight conduit. Terminate the conduit in the left of the motor plate using a conduit connector.
8. Run conduit from the line reactor through the motor plate to the VFD using conduit connectors on both ends.
9. Run conduit from the VFD to the motor using conduit connectors on both ends.