HONEYVILLE
SF Series

Shaker Filter System

Models

SF-30
SF-48
SF-78
SF-96

Honeyville Metal, Inc.
4200 S 900 W
Topeka, IN 46571

Revision Date: 4/25/2008

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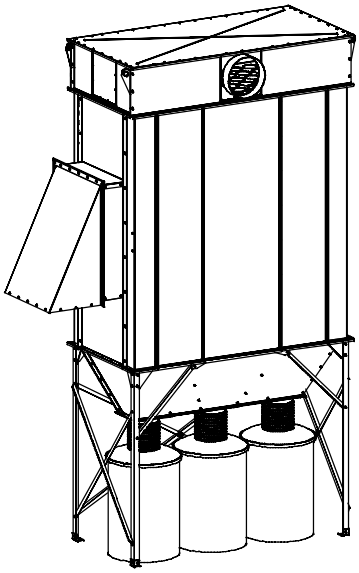
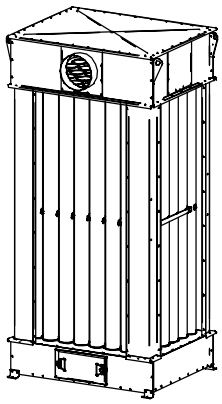
INTRODUCTION

Thank you for purchasing a Honeyville SF Series Filter. This manual will help you understand the operation of this filter, guide you through the assembly and installation steps, and give you a reference for ordering replacement parts for your filter.

You will find the SF Series to be a versatile line of filters. Available in a range of sizes and heights, you are likely to find a combination that fits your needs and space. Several material storage options are available for economy and convenience, as well as weather enclosures for outdoor use. A variety of inlet and venting configurations will allow integration with the rest of your system, while motorized and automated shaking options provide ease of operation.

We hope your filter will provide years of reliable service and clean air for you and your environment.





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SAFETY

WARNING!

Do not attempt to operate or maintain this piece of equipment until you have read and thoroughly understood all of the safety information contained in this manual. All such information must be taken seriously. This piece of equipment contains moving parts and potential pinch points which can cause serious injury or death. If you do not understand anything in this manual seek assistance from your supervisor before operating equipment.

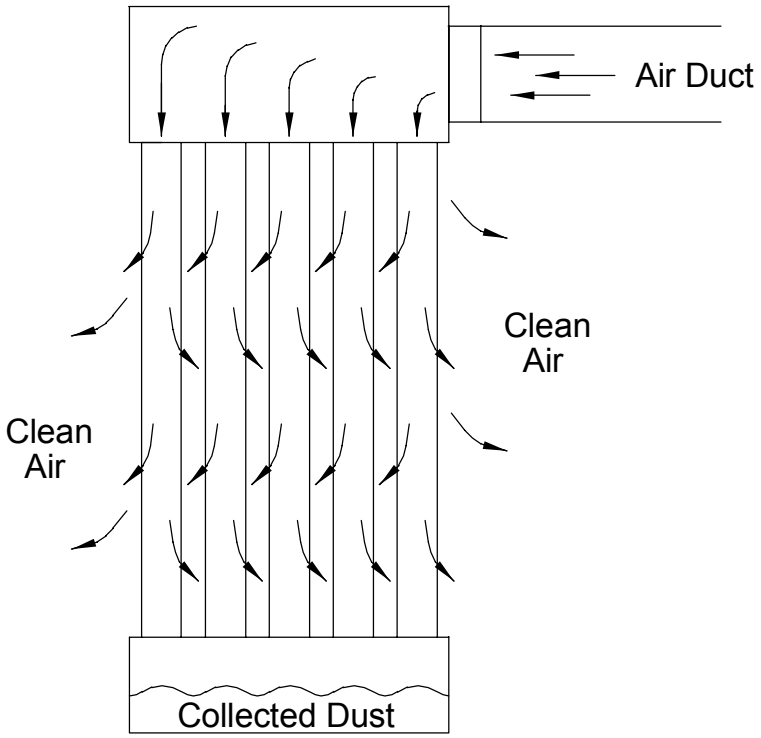
WARNING!

Do not operate, inspect, or service this equipment unless all the following safety precautions are in effect. Failure to follow these instructions may result in personal injury, death and/or property damage.

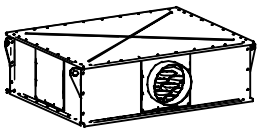
- Guards, Access Doors, and Covers are in place and secure.
- The equipment has been wired and grounded in accordance with all applicable codes.
- If air being filtered contains toxic materials all necessary precautions to protect personnel have been taken.
- An approved lockout-tagout procedure has been followed before the equipment is inspected, disassembled, and/or serviced. The equipment is automatically controlled and may start without warning unless energy supplies are properly disconnected and locked out and tagged out.
- The Control Panel Enclosure is closed and secured except as is necessary for service or adjustment.
- The Access Door is closed and secured. Do not enter Filter while the system Exhaust Fan is operating.
- Do not cut, weld or grind on the filter while it is in operation; dust laden air may be highly explosive. Refer to the proper National Fire Protection Association Manual for information on cutting, welding or grinding in hazardous areas.
- The work area is clean and orderly, free of debris, materials, tools, etc.
- Operating personnel are wearing ear and eye protection and have secured loose hair, clothing, jewelry, etc.

PRINCIPLE OF OPERATION

The Honeyville SF Series Filter is designed for use as an after filter for vent air from a Primary Cyclone. Some light dust applications allow the SF Series to be connected directly to a Fan Outlet serving as a Primary Filter. Dust laden air enters the Top Chamber through the Inlet Opening. Dust laden air passes down through each Cloth Filter Bag and out through the Filter Fabric. Dust is trapped and collected on the inside of the Filter Bag where the air released out through the Filter Bag is clean air. Particles as small as 1 micron can be removed from the air stream. A manual or automated shake of the Filter Bags after each shift of operation will release the Dust Cake buildup from the inside of the Filter Bags causing it to drop into the lower Collection Hopper. Dust is removed via Access Door into Low Profile Hopper, or on Sloped Hopper dust will pass on into Barrels or Plastic Bags.



PARTS LIST



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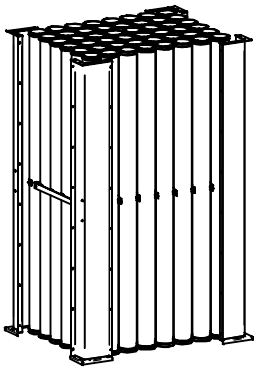

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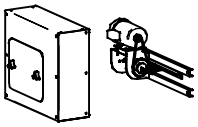

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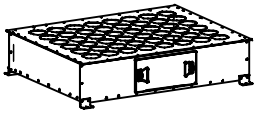

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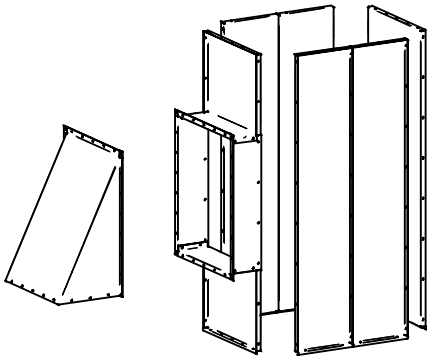

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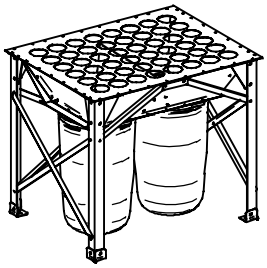

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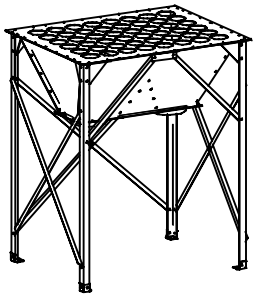


Hopper Bottom for Barrels…5-8

TOP CHAMBER

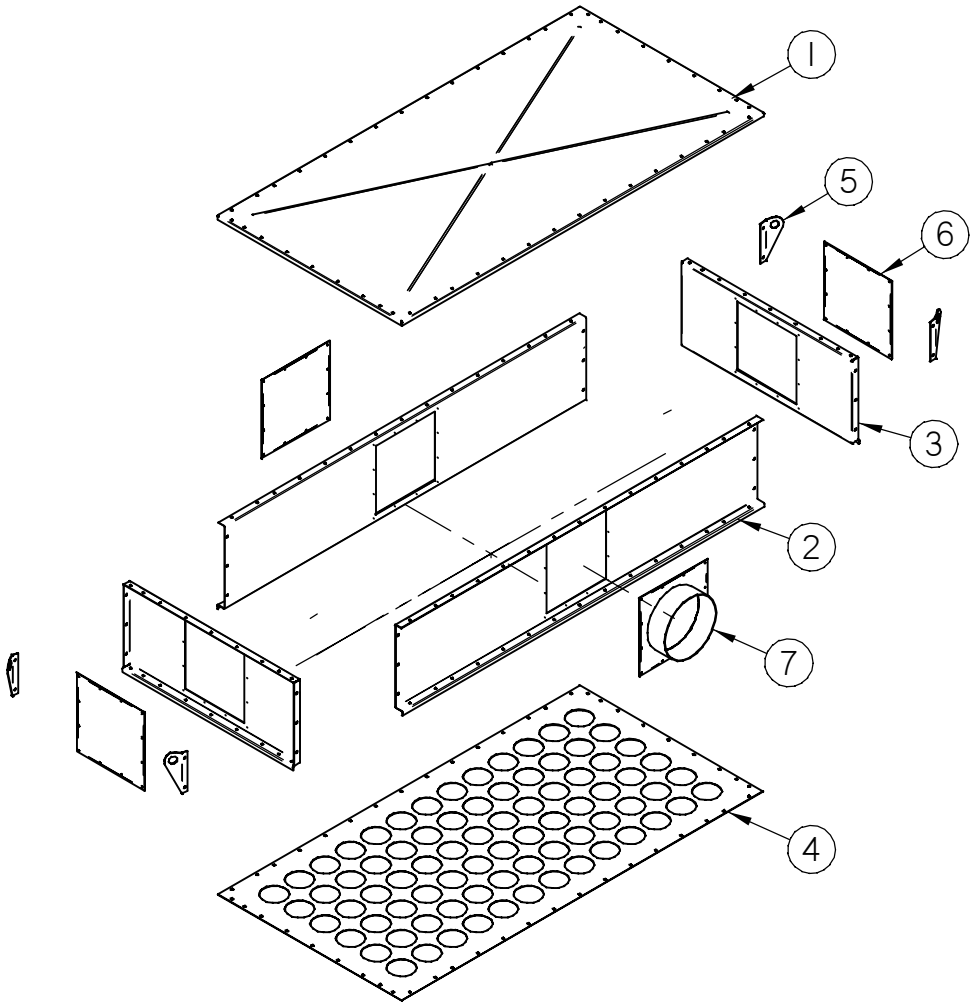
SF-30 & SF-48 FILTERS

Item No	Description	SF-30		SF-48	
		Qty	Size	Qty	Size
1	Roof Panel	1	43 1/2" x 37 1/2"	1	43 1/2" x 55 1/2"
2	Top Side Panel	2	17" x 37 1/4"	2	17" x 55 1/4"
3	Top End Panel	2	17" x 40 1/4"	2	17" x 40 1/4"
4	Cell Plate	1	43 1/4" x 37 1/4"	1	43 1/4" x 55 1/4"
5	Lifting Lug	4		4	
6	Inlet Cover	3	16" x 16"	3	16" x 16"
7	10" Inlet	Opt	10" Dia. x 16" x 16"	Opt	10" Dia. x 16" x 16"
	12" Inlet	1	12" Dia. x 16" x 16"	Opt	12" Dia. x 16" x 16"
	14" Inlet	Opt	14" Dia. x 16" x 16"	1	14" Dia. x 16" x 16"
	5/16"-18 x 3/4" Bolt	60		72	
	5/16"-18 Whiz Nut	60		72	
	14 x 3/4" Self-Drilling Screw	48		48	
	White Latex Caulk	1/2	10 Oz. Tube	1/2	10 Oz. Tube

SF-78 & SF-96 FILTERS

Item No	Description	SF-78		SF-96	
		Qty	Size	Qty	Size
1	Roof Panel	1	43 1/2" x 85 1/2"	1	43 1/2" x 103 1/2"
2	Top Side Panel	2	17" x 85 1/4"	2	17" x 103 1/4"
3	Top End Panel	2	17" x 40 1/4"	2	17" x 40 1/4"
4	Cell Plate	1	43 1/4" x 85 1/4"	1	43 1/4" x 103 1/4"
5	Lifting Lug	4		4	
6	Inlet Cover	3	16" x 26"	3	16" x 26"
7	16" Inlet	Opt	16" Dia. x 16" x 26"	Opt	16" Dia. x 16" x 26"
	18" Inlet	1	18" Dia. x 16" x 26"	Opt	18" Dia. x 16" x 26"
	20" Inlet	Opt	20" Dia. x 16" x 26"	Opt	20" Dia. x 16" x 26"
	22" Inlet	Opt	22" Dia. x 16" x 26"	1	22" Dia. x 16" x 26"
	5/16"-18 x 3/4" Bolt	92		104	
	5/16"-18 Whiz Nut	92		104	
	14 x 3/4" Self-Drilling Screw	64		64	
	White Latex Caulk	1	10 Oz. Tube	1	10 Oz. Tube

TOP CHAMBER



POSTS, BAGS, AND SHAKER

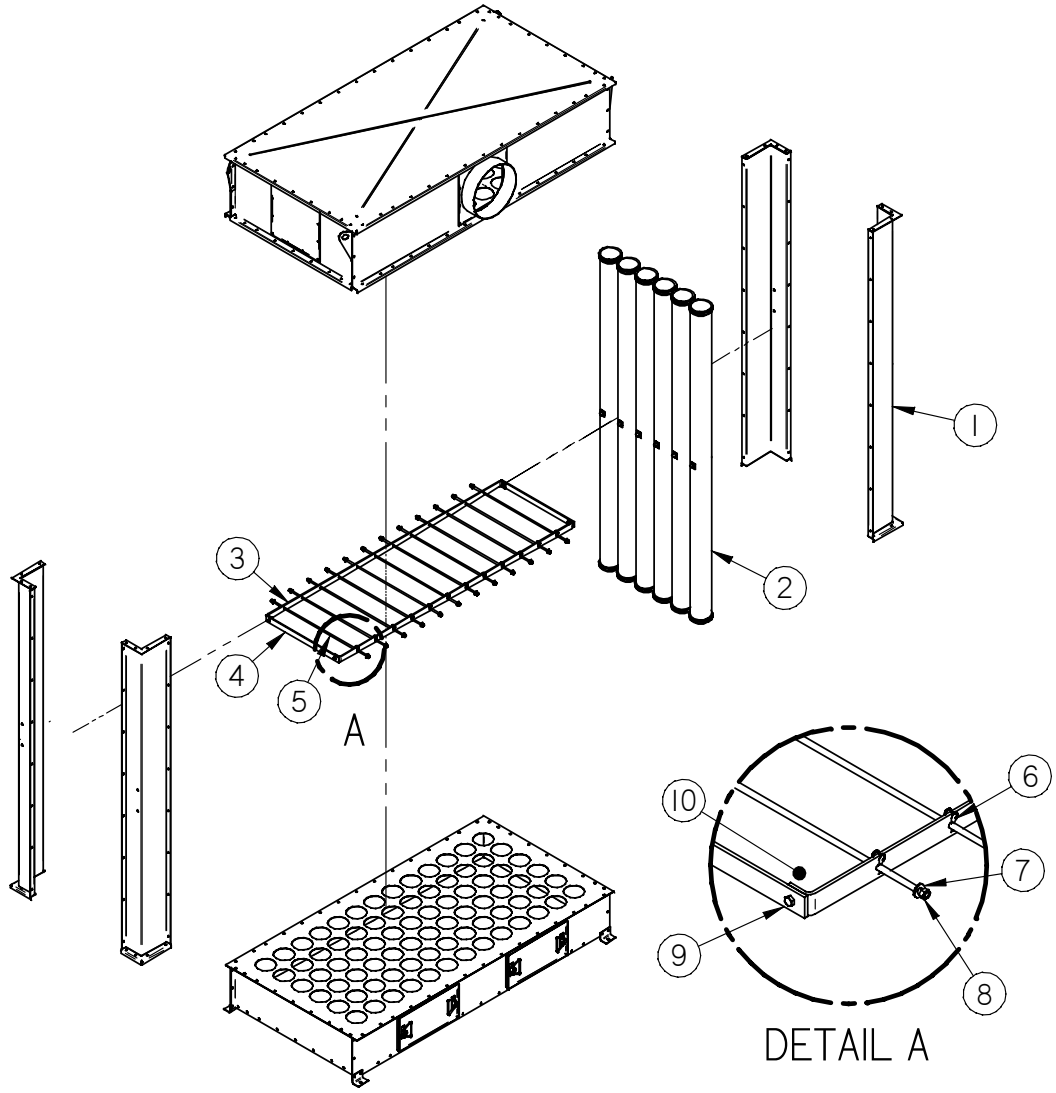
SF-30 & SF-48 FILTERS

Item No	Description	SF-30-S		SF-30		SF-48-S		SF-48	
		Qty	Size	Qty	Size	Qty	Size	Qty	Size
1	Post	4	62 1/8"	4	88 1/8"	4	62 1/8"	4	88 1/8"
2	Filter Bag	30	62 1/4"	30	88 1/4"	48	62 1/4"	48	88 1/4"
3	Shaker Unit Side	2	29"	2	29"	2	47"	2	47"
4	Shaker Unit End	2	24"	2	24"	2	24"	2	24"
5	Shaker Unit Rod	4	32 1/4"	4	32 1/4"	7	32 1/4"	7	32 1/4"
6	1 3/16" Hitch Pin	8		8		14		14	
7	3/8" Flat Washer	8		8		14		14	
8	3/8"-16 Hex Nut	8		8		14		14	
9	3/8"-16 Whiz Nut	36		36		36		36	
10	3/8"-16 x 1" Bolt	36		36		36		36	

SF-78 & SF-96 FILTERS

Item No	Description	SF-78-S		SF-78		SF-96-S		SF-96	
		Qty	Size	Qty	Size	Qty	Size	Qty	Size
1	Post	4	62 1/8"	4	88 1/8"	4	62 1/8"	4	88 1/8"
2	Filter Bag	78	62 1/4"	78	88 1/4"	96	62 1/4"	96	88 1/4"
3	Shaker Unit Side	2	77"	2	77"	2	95"	2	95"
4	Shaker Unit End	2	24"	2	24"	2	24"	2	24"
5	Shaker Unit Rod	12	32 1/4"	12	32 1/4"	15	32 1/4"	15	32 1/4"
6	1 3/16" Hitch Pin	24		24		30		30	
7	3/8" Flat Washer	24		24		30		30	
8	3/8"-16 Hex Nut	24		24		30		30	
9	3/8"-16 Whiz Nut	36		36		36		36	
10	3/8"-16 x 1" Bolt	36		36		36		36	

POSTS, BAGS, AND SHAKER



LOW PROFILE HOPPER

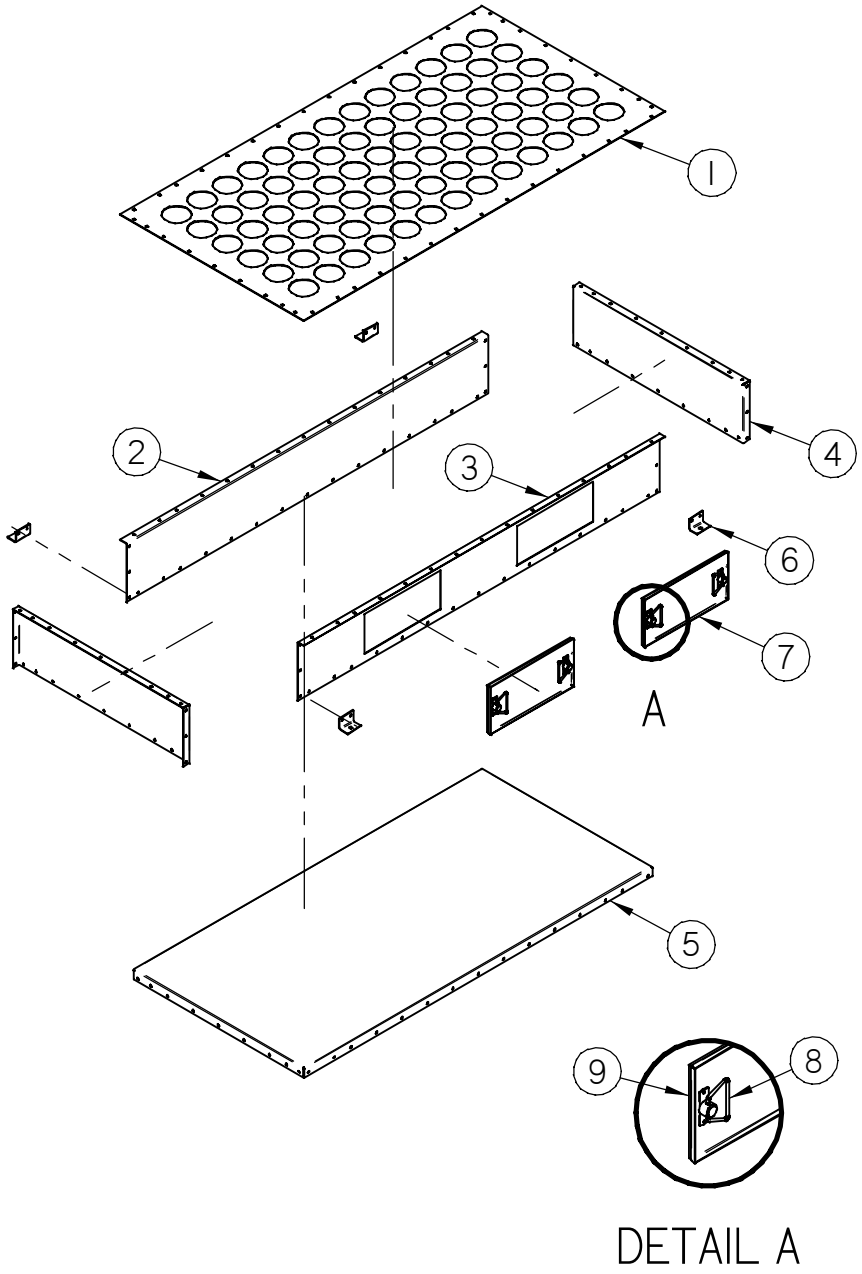
SF-30 & SF-48 FILTERS

Item No	Description	SF-30		SF-48	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 37 1/4"	1	43 1/4" x 55 1/4"
2	Hopper Side Panel	1	12" x 37 1/4"	1	12" x 55 1/4"
3	Hopper Side Panel w/ Cut-out	1	12" x 37 1/4"	1	12" x 55 1/4"
4	Hopper End Panel	2	12" x 40 1/4"	2	12" x 40 1/4"
5	Hopper Floor Panel	1	40 1/4" x 34 1/4"	1	40 1/4" x 52 1/4"
6	Foot Plate	4	2" x 2 1/4" x 3 1/4"	4	2" x 2 1/4" x 3 1/4"
7	Clean-out Door	1	9 3/4" x 19 3/4"	1	9 3/4" x 19 3/4"
8	Bail Handle Spring Latch	2		2	
9	3/8" x 3/4" Foam	1	5'	1	5'
	5/16"-18 x 3/4" Bolt	60		72	
	5/16"-18 Whiz Nut	60		72	
	White Latex Caulk	1/2	10 Oz. Tube	1/2	10 Oz. Tube

SF-78 & SF-96 FILTERS

Item No	Description	SF-78		SF-96	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 85 1/4"	1	43 1/4" x 103 1/4"
2	Hopper Side Panel	1	12" x 85 1/4"	1	12" x 103 1/4"
3	Hopper Side Panel w/ Cut-out	1	12" x 85 1/4"	1	12" x 103 1/4"
4	Hopper End Panel	2	12" x 40 1/4"	2	12" x 40 1/4"
5	Hopper Floor Panel	1	40 1/4" x 82 1/4"	1	40 1/4" x 100 1/4"
6	Foot Plate	4	2" x 2 1/4" x 3 1/4"	4	2" x 2 1/4" x 3 1/4"
7	Clean-out Door	2	9 3/4" x 19 3/4"	2	9 3/4" x 19 3/4"
8	Bail Handle Spring Latch	4		4	
9	3/8" x 3/4" Foam	1	10'	1	10'
	5/16"-18 x 3/4" Bolt	92		104	
	5/16"-18 Whiz Nut	92		104	
	White Latex Caulk	1	10 Oz. Tube	1	10 Oz. Tube

LOW PROFILE HOPPER



HOPPER BOTTOM FOR BARRELS (OPTIONAL)

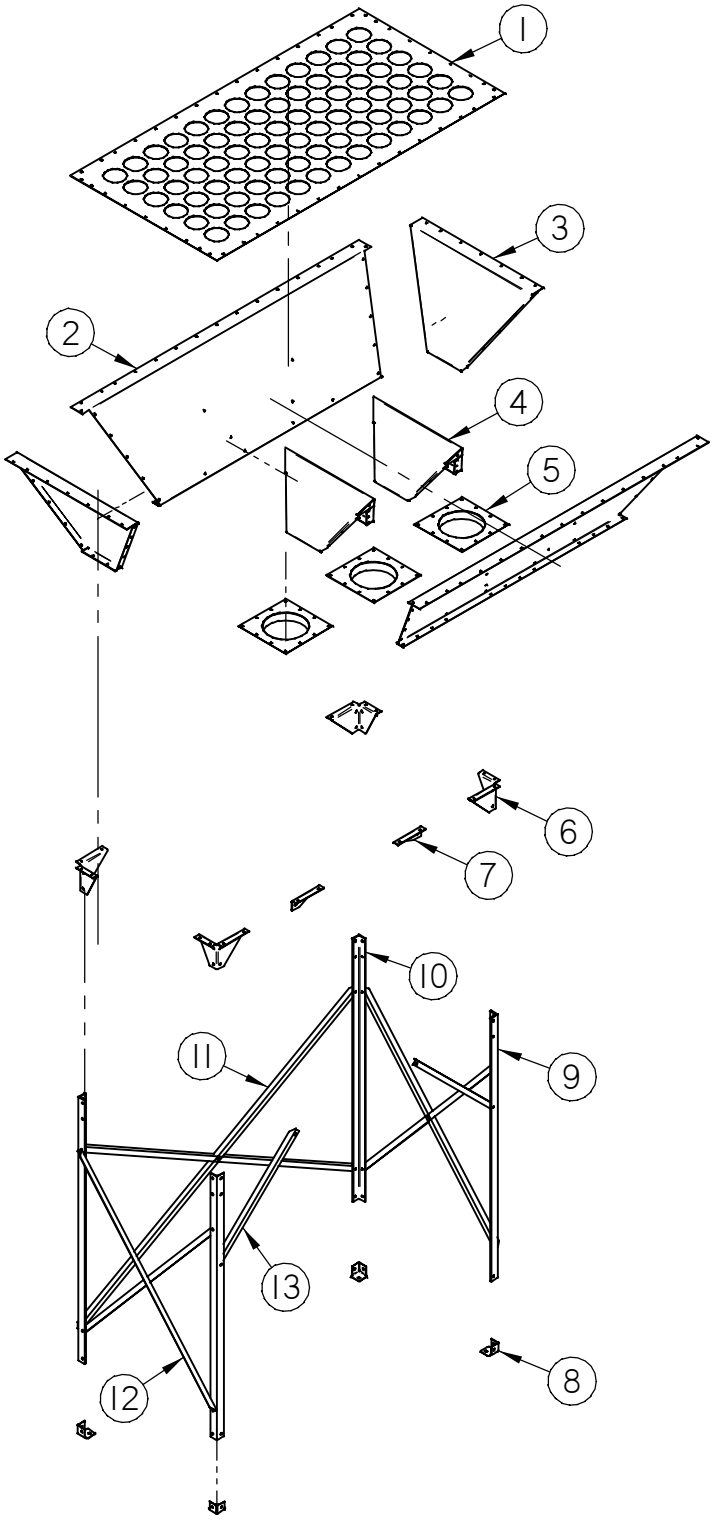
SF-30 & SF-48 FILTERS

Item No	Description	SF-30		SF-48	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 37 1/4"	1	43 1/4" x 55 1/4"
2	Hopper Side Panel	2	22" x 37 1/4"	2	22" x 55 1/4"
3	Hopper End Panel	2	22" x 43 1/4"	2	22" x 43 1/4"
4	Hopper Divider	N/A		1	15 1/2" x 26"
5	Hopper Discharge	1	10" Dia. x 14" x 14"	2	10" Dia. x 14" x 14"
6	Leg Bracket - L&R	4	6 1/2" x 9 1/2" x 8 1/2"	4	6 1/2" x 9 1/2" x 8 1/2"
7	Front Bracket - L&R	N/A		N/A	
	Front Bracket - Double	N/A		1	1 1/2" x 2 1/2" x 8"
8	Foot Plate	4	3 1/2" x 3 1/2" x 3"	4	3 1/2" x 3 1/2" x 3"
9	Front Leg - L&R	2	3" x 3" x 67 1/4"	2	3" x 3" x 67 1/4"
10	Back Leg	2	3" x 3" x 67 1/4"	2	3" x 3" x 67 1/4"
11	Back Brace	2	1 1/2" x 1 1/2" x 60 15/16"	2	1 1/2" x 1 1/2" x 72 1/8"
12	Side Brace	4	1 1/2" x 1 1/2" x 64 5/16"	4	1 1/2" x 1 1/2" x 64 5/16"
13	Front Brace	1	1 1/2" x 1 1/2" x 32 7/8"	2	1 1/2" x 1 1/2" x 32 3/8"
	5/16"-18 x 3/4" Bolt	38		70	
	5/16"-18 Whiz Nut	38		70	
	3/8"-16 x 1" Bolt	38		40	
	3/8"-16 Whiz Nut	38		40	
	1/2" Flat Washer	6		6	
	1/2"-13 x 1" Bolt	24		24	
	1/2" 13 Hex Nut	24		24	
	White Latex Caulk	1/2	10 Oz. Tube	1/2	10 Oz. Tube

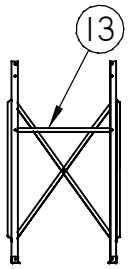
SF-78 & SF-96 FILTERS

Item No	Description	SF-78		SF-96	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 85 1/4"	1	43 1/4" x 103 1/4"
2	Hopper Side Panel	2	22" x 85 1/4"	2	22" x 103 1/4"
3	Hopper End Panel	2	22" x 43 1/4"	2	22" x 43 1/4"
4	Hopper Divider	2	15 1/2" x 26"	3	15 1/2" x 26"
5	Hopper Discharge	3	10" Dia. x 14" x 14"	4	10" Dia. x 14" x 14"
6	Leg Bracket - L&R	4	6 1/2" x 9 1/2" x 8 1/2"	4	6 1/2" x 9 1/2" x 8 1/2"
7	Front Bracket - L&R	2	1 1/2" x 2 1/2" x 8"	2	1 1/2" x 2 1/2" x 8"
	Front Bracket - Double	N/A		N/A	
8	Foot Plate	4	3 1/2" x 3 1/2" x 3"	4	3 1/2" x 3 1/2" x 3"
9	Front Leg - L&R	2	3" x 3" x 67 1/4"	2	3" x 3" x 67 1/4"
10	Back Leg	2	3" x 3" x 67 1/4"	2	3" x 3" x 67 1/4"
11	Back Brace	2	2" x 2" x 95 9/16"	2	2" x 2" x 111 3/16"
12	Side Brace	4	1 1/2" x 1 1/2" x 64 5/16"	4	1 1/2" x 1 1/2" x 52"
13	Front Brace	2	1 1/2" x 1 1/2" x 32 3/8"	2	1 1/2" x 1 1/2" x 32 3/8"
14	Lower Brace	N/A		2	1 1/2" x 1 1/2" x 38 7/8"
	5/16"-18 x 3/4" Bolt	106		138	
	5/16"-18 Whiz Nut	106		138	
	3/8"-16 x 1" Bolt	40		40	
	3/8"-16 Whiz Nut	40		40	
	1/2" Flat Washer	6		6	
	1/2"-13 x 1" Bolt	24		24	
	1/2" 13 Hex Nut	24		24	
	White Latex Caulk	1	10 Oz. Tube	1	10 Oz. Tube

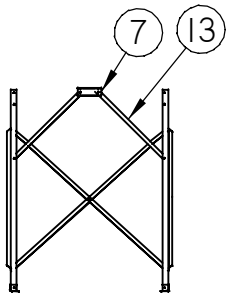
HOPPER BOTTOM FOR BARRELS (OPTIONAL)



SF-78 SHOWN



SF-30



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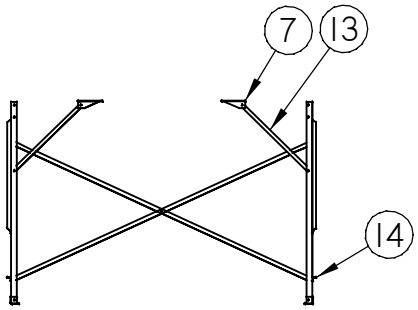


SF-96

HOPPER BOTTOM FOR PLASTIC COLLECTION BAGS (OPTIONAL)

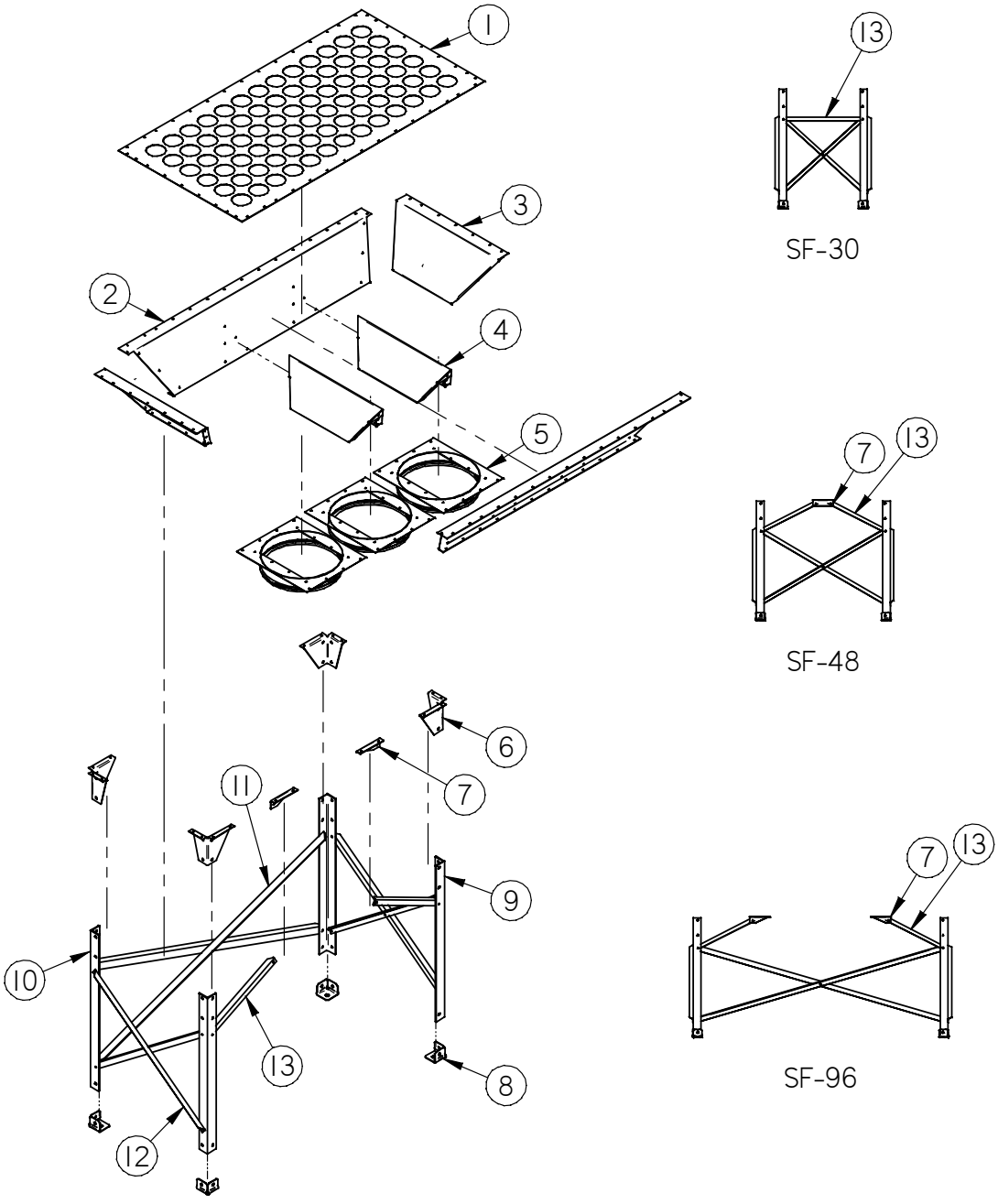
SF-30 & SF-48 FILTERS

Item No	Description	SF-30		SF-48	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 37 1/4"	1	43 1/4" x 55 1/4"
2	Hopper Side Panel	2	13" x 37 1/4"	2	13" x 55 1/4"
3	Hopper End Panel	2	13" x 35 7/8"	2	13" x 35 7/8"
4	Hopper Divider	N/A		1	12" x 32 1/2"
5	Hopper Discharge	1	20 1/2" Dia. x 21" x 24 1/2"	2	20 1/2" Dia. x 21" x 24 1/2"
6	Leg Bracket - L&R	4	6 1/2" x 9 1/2" x 8 1/2"	4	6 1/2" x 9 1/2" x 8 1/2"
7	Front Bracket - L&R	N/A		N/A	
	Front Bracket - Double	N/A		1	1 1/2" x 2 1/2" x 8"
8	Foot Plate	4	3 1/2" x 3 1/2" x 3"	4	3 1/2" x 3 1/2" x 3"
9	Front Leg - L&R	2	3" x 3" x 47 1/4"	2	3" x 3" x 47 1/4"
10	Back Leg	2	3" x 3" x 47 1/4"	2	3" x 3" x 47 1/4"
11	Back Brace	2	1 1/2" x 1 1/2" x 43 7/8"	2	1 1/2" x 1 1/2" x 58 1/2"
12	Side Brace	4	1 1/2" x 1 1/2" x 48 1/2"	4	1 1/2" x 1 1/2" x 48 1/2"
13	Front Brace	1	1 1/2" x 1 1/2" x 32 7/8"	2	1 1/2" x 1 1/2" x 25 13/16"
	5/16"-18 x 3/4" Bolt	42		78	
	5/16"-18 Whiz Nut	42		78	
	3/8"-16 x 1" Bolt	38		40	
	3/8"-16 Whiz Nut	38		40	
	1/2" Flat Washer	6		6	
	1/2"-13 x 1" Bolt	24		24	
	1/2" 13 Hex Nut	24		24	
	White Latex Caulk	1/2	10 Oz. Tube	1/2	10 Oz. Tube
	Clamp	1	20 1/2" Dia.	2	20 1/2" Dia.
	Plastic Collection Bag	1	21" Dia. x 40" Tall	2	21" Dia. x 40" Tall

SF-78 & SF-96 FILTERS

Item No	Description	SF-78		SF-96	
		Qty	Size	Qty	Size
1	Cell Plate	1	43 1/4" x 85 1/4"	1	43 1/4" x 103 1/4"
2	Hopper Side Panel	2	13" x 85 1/4"	2	13" x 103 1/4"
3	Hopper End Panel	2	13" x 35 7/8"	2	13" x 35 7/8"
4	Hopper Divider	2	12" x 32 1/2"	3	12" x 32 1/2"
5	Hopper Discharge	3	20 1/2" Dia. x 21" x 24 1/2"	4	20 1/2" Dia. x 21" x 24 1/2"
6	Leg Bracket - L&R	4	6 1/2" x 9 1/2" x 8 1/2"	4	6 1/2" x 9 1/2" x 8 1/2"
7	Front Bracket - L&R	2	1 1/2" x 2 1/2" x 8"	2	1 1/2" x 2 1/2" x 8"
	Front Bracket - Double	N/A		N/A	
8	Foot Plate	4	3 1/2" x 3 1/2" x 3"	4	3 1/2" x 3 1/2" x 3"
9	Front Leg - L&R	2	3" x 3" x 47 1/4"	2	3" x 3" x 47 1/4"
10	Back Leg	2	3" x 3" x 47 1/4"	2	3" x 3" x 47 1/4"
11	Back Brace	2	2" x 2" x 85 13/16"	2	2" x 2" x 102 7/8"
12	Side Brace	4	1 1/2" x 1 1/2" x 48 1/2"	4	1 1/2" x 1 1/2" x 48 1/2"
13	Front Brace	2	1 1/2" x 1 1/2" x 25 13/16"	2	1 1/2" x 1 1/2" x 25 13/16"
	5/16"-18 x 3/4" Bolt	118		154	
	5/16"-18 Whiz Nut	118		154	
	3/8"-16 x 1" Bolt	40		40	
	3/8"-16 Whiz Nut	40		40	
	1/2" Flat Washer	6		6	
	1/2"-13 x 1" Bolt	24		24	
	1/2" 13 Hex Nut	24		24	
	White Latex Caulk	1	10 Oz. Tube	1	10 Oz. Tube
	Clamp	3	20 1/2" Dia.	4	20 1/2" Dia.
	Plastic Collection Bag	3	21" Dia. x 40" Tall	4	21" Dia. x 40" Tall

HOPPER BOTTOM FOR PLASTIC COLLECTION BAGS (OPTIONAL)



WEATHER ENCLOSURE (OPTIONAL)

SF-30 & SF-48 FILTERS

Item No.	Description	SF-30S		SF-30		SF-48S		SF-48	
		Qty	Size	Qty	Size	Qty	Size	Qty	Size
1	Outlet Top Panel	1	11" x 30"	1	24" x 30"	1	11" x 30"	1	24" x 30"
2	Outlet Bottom Panel	1	11" x 30"	1	24" x 30"	1	11" x 30"	1	24" x 30"
3	Outlet Side Panel	2	10" x 40"	2	10" x 40"	2	10" x 40"	2	10" x 40"
4	30" Weather Panel	1	30" x 62 1/8"	1	30" x 88 1/8"	1	30" x 62 1/8"	1	30" x 88 1/8"
5	24" Weather Panel	N/A	24" x 62 1/8"	N/A	24" x 88 1/8"	N/A	24" x 62 1/8"	N/A	24" x 88 1/8"
6	18" Weather Panel	2	18" x 62 1/8"	2	18" x 88 1/8"	4	18" x 62 1/8"	4	18" x 88 1/8"
	5/16"-18 x 3/4" Bolt	114		130		138		158	
	5/16"-18 Whiz Nut	114		130		138		158	
	3/16" Black Trim	4	62"	4	88"	6	62"	6	88"
	Vent Hood	Opt		Opt		Opt		Opt	
	Outlet Cover	Opt		Opt		Opt		Opt	

SF-78 & SF-96 FILTERS

Item No.	Description	SF-78S		SF-78		SF-96S		SF-96	
		Qty	Size	Qty	Size	Qty	Size	Qty	Size
1	Outlet Top Panel	1	11" x 30"	1	24" x 30"	1	11" x 30"	1	24" x 30"
2	Outlet Bottom Panel	1	11" x 30"	1	24" x 30"	1	11" x 30"	1	24" x 30"
3	Outlet Side Panel	2	10" x 40"	2	10" x 40"	2	10" x 40"	2	10" x 40"
4	30" Weather Panel	3	30" x 62 1/8"	3	30" x 88 1/8"	5	30" x 62 1/8"	5	30" x 88 1/8"
5	24" Weather Panel	N/A	24" x 62 1/8"	N/A	24" x 88 1/8"	2	24" x 62 1/8"	2	24" x 88 1/8"
6	18" Weather Panel	4	18" x 62 1/8"	4	18" x 88 1/8"	N/A	18" x 62 1/8"	N/A	18" x 88 1/8"
	5/16"-18 x 3/4" Bolt	170		194		182		206	
	5/16"-18 Whiz Nut	170		194		182		206	
	3/16" Black Trim	8	62"	8	88"	8	62"	8	88"
	Vent Hood	Opt		Opt		Opt		Opt	
	Outlet Cover	Opt		Opt		Opt		Opt	

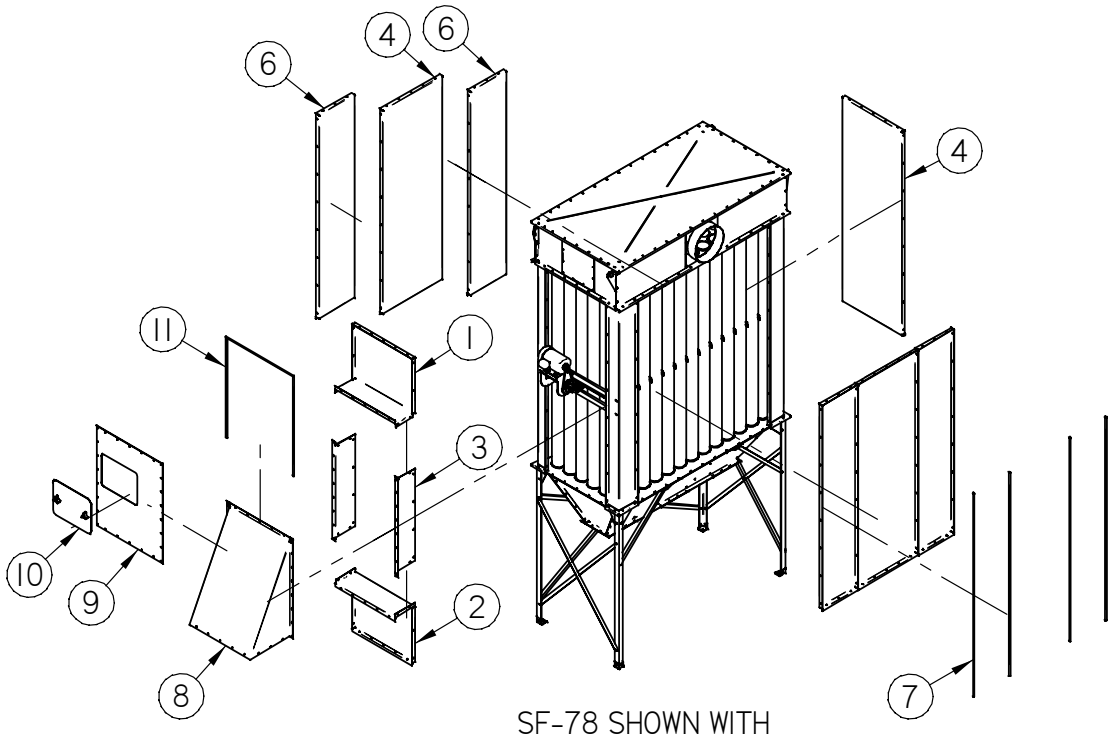
VENT HOOD

Item No.	Description	Qty	Size
8	Vent Hood	1	33" x 43" x 20"
11	3/16" Black Trim	1	120"

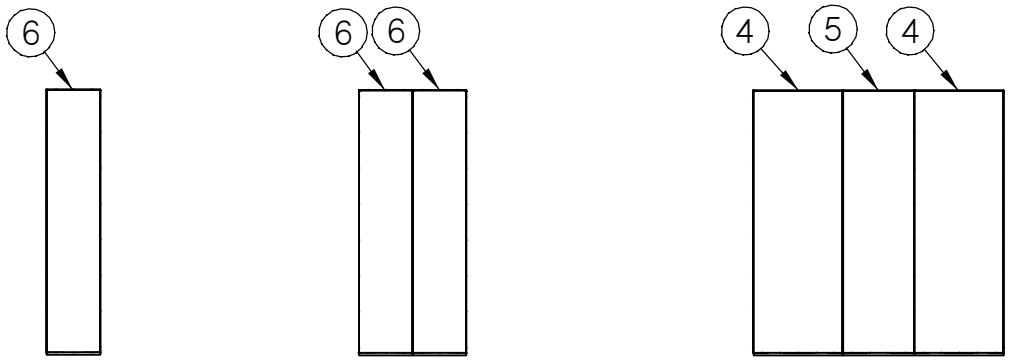
OUTLET COVER

Item No.	Description	Qty	Size
9	Outlet Cover	1	33" x 43" x 20"
10	Easy Access Door	1	15" x 19"
11	3/16" Black Trim	1	120"

WEATHER ENCLOSURE (OPTIONAL)



SF-78 SHOWN WITH
BARREL HOPPER AND
MOTORIZED SHAKER.



SF-30 SF-48 SF-96

WEATHER PANEL LAYOUT

MOTORIZED SHAKER (OPTIONAL)

MOTORIZED SHAKER

Item No.	Description	Qty	Size
1	Shaker Motor Assembly	1	33" x 43" x 20"
	3/8"-16 x 3/4" Bolt	4	
	3/8"-16 Whiz Nut	4	
2	Motor Cover	Opt	

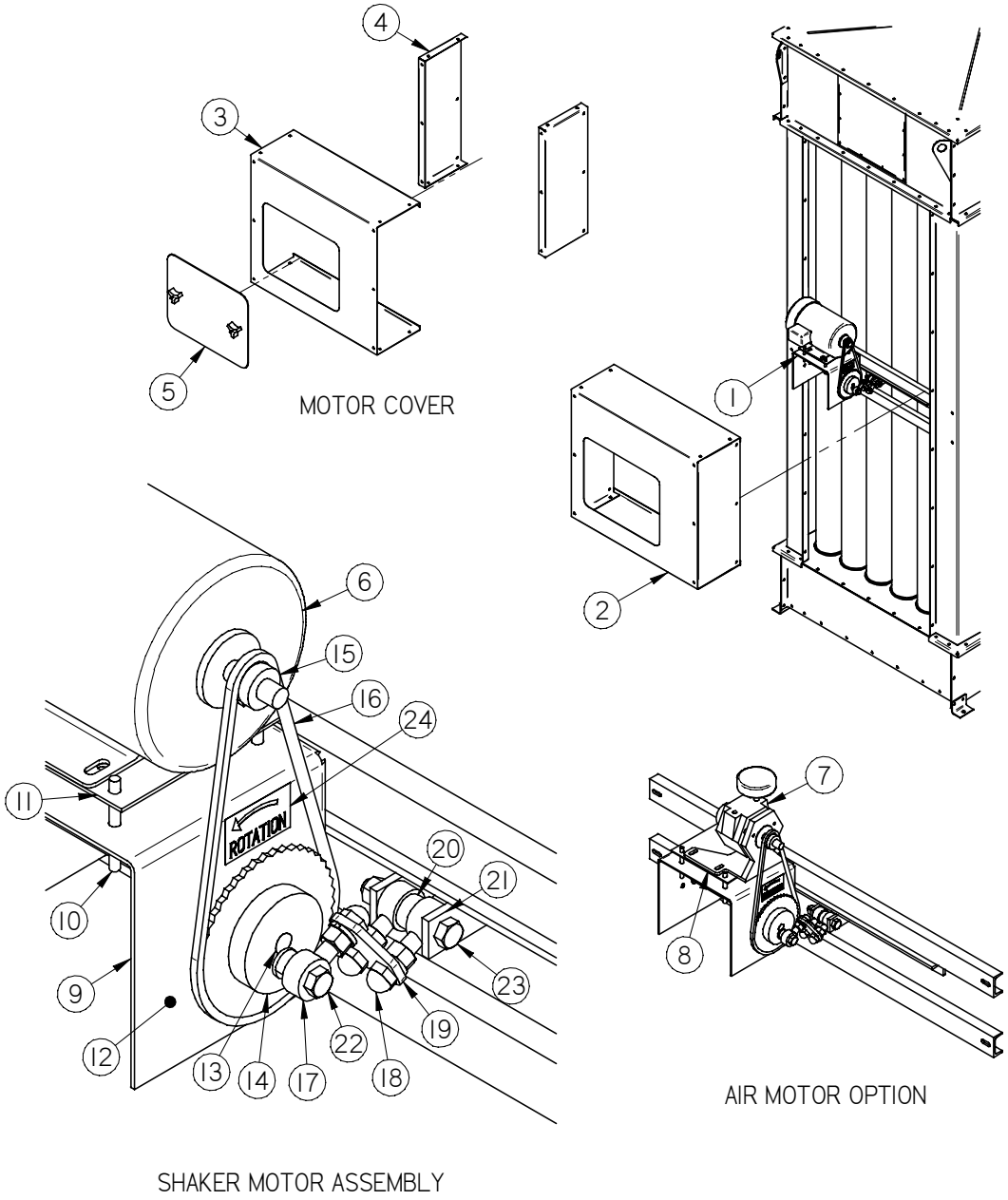
SHAKER MOTOR ASSEMBLY

Item No.	Description	Qty	Part No.
6	1/2 HP Motor	1	5K672
7	1 3/4 HP Air Motor	Opt	4Z231
8	Base for 4Z231	Opt	6X890
9	Motor Frame Weldment	1	
10	5/16 Threaded Rod x 3"	4	
11	Motor Mount	1	
12	Fafnir Flange Bearing	2	5/8"-SCJT
13	5/8 Shaft x 11"	1	
14	Type BS Sprocket 5/8"	1	35B42
15	Sprocket 5/8"	1	3510
16	No. 35 Roller Chain	28"	2W092
	No. 35 Chain Link	1	5X290
17	1/2-20 Ball Joint Rod End	3	60645K16
18	1/2-20 Cap Nut	3	
19	3-Rod Connector	1	
20	1/2" Set Collar	1	
21	Shaker Angle Weldment	1	
22	1/2-13 x 2 Hex Bolt	1	
23	1/2-13 x 3 Hex Bolt	1	
	1/2-13 Hex Nut	2	
	1/2-20 Hex Nut	3	
	1/2 Lock Washer	5	
	3/8-16 x 1 Hex Bolt	4	
	3/8-16 Whiz Nut	4	
	5/16-18 x 1 Hex Bolt	4	
	5/16-18 Hex Nut	16	
	5/16-18 Whiz Nut	4	
	5/16 Flat Washer	4	
24	Rotation Sticker (CCW)	1	

MOTOR COVER

Item No.	Description	Qty	Size
3	Cover	1	30" x 26" x 10"
4	Cover Sides	2	10" x 26"
5	Easy Access Door	1	15" x 19"
	5/16"-18 x 3/4" Bolt	20	
	5/16"-18 Whiz Nut	20	

MOTORIZED SHAKER (OPTIONAL)

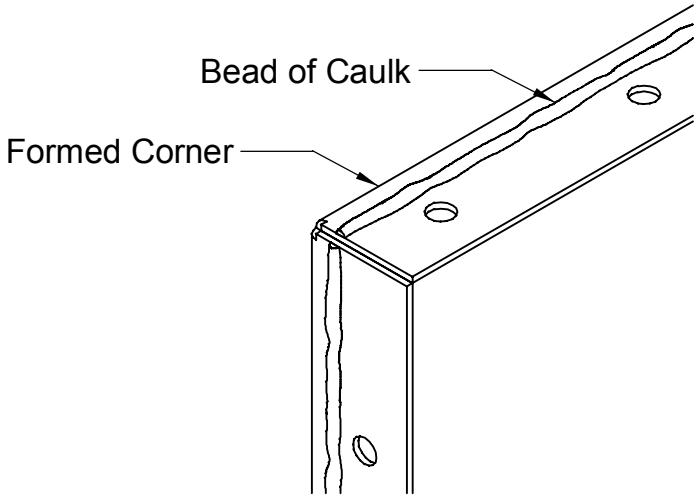


ASSEMBLY

1. Begin assembly process by separating parts into groups. Refer to parts list (page 5-1).

2. Begin the assembly of the Top Chamber by setting up a set of saw horses or a table as the work surface.

3. Assemble Top Chamber (refer to 5-2 and 5-3). Apply a 1/8" to 3/16" bead of caulk between the row of bolts and the formed corner on each panel where they join to the mating panel.



4. Assemble Top Chamber using 5/16"-18 x 3/4" bolts and nuts supplied, hand tighten only until entire chamber is intact. Tighten all bolts working from the center of each panel outward to the corners.
   4.1 Omit placing bolts in the four corner holes where the Post (page 5-5, item 1) will connect to the enclosure.

5. Assemble Low Profile Hopper using the same procedure as the Top Chamber. (Refer to 2, 3 and 4 above.)
   5.1 If using optional hoppers for barrels or plastic collection bags, assemble in a similar procedure to the Low Profile Hopper. Also install the (4) angle legs and cross bracing (page 5-9, items 6 through 13) in this step prior to the completion of step 6.

6. Place Top Chamber and Low Profile Hopper on the floor, positioning them turned at 90° from the position they will be when final assembly is completed. Space sections apart so that the Posts (page 5-5, item 1) can be bolted into place. Install the four Posts with 3/8"-16 x 1" bolts and nuts. Tighten all remaining bolts and raise unit up into a standing position.

7. Install the Bags beginning at one end and working in rows and columns across the entire unit. Connect the Bag first to the Top Chamber Cell Plate and then second to the Hopper Cell Plate.
   7.1 The best method for inserting the Bag Cuff into the Cell Plate is to form the Bag Cuff into a "U" shape. Insert the Bag Cuff carefully centering the v-groove into the Cell Plate and then snap back into a circle, which is the sealed position.
   7.2 Verify that each Bag has a sewn loop in the center laterally. This loop should be turned so that it will accommodate the Rods of the Shaker Assembly.

8. Install the Shaker Assembly. Start by locating the Shaker Unit Side (page 5-5, item 3) between the first and second row of Bags. Thread the two end Rods (item 5) through the Bag Loops and the holes in Shaker Unit Sides (item 3) to hold frame into position. Connect the Shaker Unit End (item 4) to the Shaker Unit Sides (item 3). Complete the assembly by threading the rods through the Bag Loops and Shaker Unit Sides. Reference to Detail A on page 5-7, each Rod (item 5) has holes for a Hitch Pin (item 6). Position Rods so that the holes are located along the same Shaker Unit Side (item 3). Install a Hitch Pin (item 6) one on each side of Shaker Unit Side (item 3). This locates and keeps the Rods in position. Complete Shaker assembly by placing a 3/8 " nut (item 7) on the end of each Rod (item 5).
   8.1 Bags at each end of the Filter will only have one loop attached to a Rod.

9. Install the Motorized Shaker. Start by removing the Shaker Unit End (page 5-5, item 4) from the Shaker Assembly at the end of the filter where the Motorized Shaker will be mounted. Mount the Shaker Motor Assembly by aligning the four bolt holes on the inside surface of the Post (page 5-5, item 1) and the cross channels of the Motor Frame Weldment (page 5-15, item 9). Install with (4) 3/8" x 1" bolts and nuts. Connect the Shaker Angle Weldment (page 5-15, item 21) by bolting it to the Shaker Assembly using 3/8" x 1" bolts and nuts.

10. Install the Weather Enclosure as the final step in the assembly of the filter unit. Start by installing the end panels (page 5-13, items 1 through 4). Refer to the caulking recommendations in step 3 for bead size. Do not apply caulk to the panel being installed; rather apply caulk to the fixed points on the filter assembly making sure the bead of caulk is next to the formed corner, or just inward from the row of punched holes. Slide panels into position; install 5/16" x 3/4" bolts and nuts; tighten bolts and seal with caulk any corners where a potential leak might develop. Install the side panels and outlet hood or cover (items 4 through 9) without the use of any caulk sealant. These panels will serve as the access panels for future service to the internal area of the filter. Install panels with 5/16" x 3/4" bolts and nuts, tighten, and install the 3/16" Black Trim onto the raw edges of the panel lips as a moisture barrier.

INSTALLATION

Filter unit requires a level Concrete Floor or a Floating Slab as a foundation to be anchored onto. A steel or wood deck mezzanine built to handle weight load can be a substitute for a concrete floor

1. Position Filter with Inlet on Top Chamber and Clean-Out Doors on Low Profile Hopper accessible. Anchor the Filter to the Concrete Floor with (4) 1/2" x 4 1/4" wedge anchors (supplied by other).

2. Install Air Ducting from Dust Collector Cyclone Vent Outlet or from a Fan to the Top Chamber Inlet (page 5-3, item 7).

3. Install air return ductwork from Filter Outlet through building wall.

4. Install motor cover (page 5-15, item 2) over the Shaker Motor Assembly on filters where the optional Weather Enclosure is omitted.

5. Install the electrical power supply from the motor to the control package (starter and timer) using approved electrical conduit or flex. Refer to the SF Filter Wiring Diagram for hookup details.
   - 6.1 For a Motorized Shaker with the Air Motor Option, install 3/8" NPT Pipe as the compressed air source from the air motor to a regulator and on to a ball valve. The Air Motor Option requires manual control of the shake cycle for cleaning the bags.
   - 6.2 Use a regulator to adjust the speed the Air Motor to 1140 RPM (+/- 10%). The chart below gives recommended trial pressures when setting up the system; however, each system should be individually adjusted to the speed range.

Fittings	Trial Pressure
1/4"	60-70 psi
3/8"	25-30 psi

7. Install any access covers and clean-out doors prior to filter operation.

MAINTENANCE AND TROUBLESHOOTING

1. It is recommended that one individual be assigned to monitor the operation of the Dust Collection System. The individual assigned should have maintenance manuals and manufacturer's documentation for all components readily available. He (she) should be thoroughly familiar with the manuals so as to be able to pinpoint trouble should it occur.

2. The individual responsible for the system should follow a regular schedule of inspection and maintenance. The exact schedule will depend on the particular system and the number of hours it operates per day or week. A typical maintenance schedule is shown below.

WARNING!

Disconnect and properly lockout-tagout the electrical service before performing any maintenance or service procedures on the filter.

3. Sample maintenance schedule:
   - Weekly –

   3.1 Check Filter Hopper for dust build-up and remove build-up. Do not allow dust to build up into Filter Bags.

   3.2 Check and record Magnehelic (or Photohelic) Gauge readings on Filter (if unit is equipped with optional gauge). Adverse operating conditions can be detected by a change in the pressure drop reading of the gauge.

   - Monthly –

   3.3 Check Filter Bags for signs of excessive wear or damage.

   3.4 Inspect Bearings and Roller Chain on Motorized Shaker Unit (if Filter is equipped with optional Motorized Shaker). Lubricate as needed.

4. The Filter Bags are the heart of the Filter unit and need a program of inspection, cleaning, and replacement to maintain a high operating efficiency. To remove the Bags for cleaning or replacing, perform the following:

   4.1 Shut down the system and lockout-tagout the electrical.

   4.2 Remove the Bags and inspect for excessive wear. Replace if necessary.

   4.3 Clean the Bags if necessary and reinstall clean Filter Bags as described in Section 6 Assembly Item 7.

5. Filter Bag cleaning if required.
   - 5.1 Synthetic Filter Fabrics (Polyester, Orlon, Dacron, Nomex, Polypropylene, and Teflon) should be dry cleaned.
   - 5.2 Thoroughly vacuum clean the Filter Bags to remove the bulk of the dust.
   - 5.3 Dry clean the Bags using a standard dry cleaning procedure. Use pure dry cleaning solvent. Do not use dry cleaning detergents and/or additives that require the addition of water, as these may cause fabric shrinkage.
   - 5.4 Dry the Bags. Drip-drying is the recommended drying method. Tumble drying, if used, must be done at low temperatures.
   - 5.5 Industrial Dry Cleaning establishments are available in many cities. These companies specialize in Filter Bag cleaning and will normally provide the most satisfactory results.

WARRANTY

The full extent of the warranty supplied by Honeyville Metal, Inc. is to correct any defects in material and/or workmanship on the products manufactured only by Honeyville Metal, Inc. Any unauthorized modifications to the equipment voids this warranty. This warranty period extends for **one year** from the date the product arrives on the site where installation will take place. Honeyville Metal, Inc. retains the right to review and/or adjust the time period for those products that may be held in inventory at a dealer's warehouse. Honeyville Metal, Inc. retains the final authority on determining if a product is within the warranty period and if full replacement of that product is required to retain the integrity of our products reputation and meet the customer's expectations. Honeyville Metal, Inc. will not furnish labor for replacement of any defective product or components of a product. Any product that is determined defective by both Honeyville Metal, Inc. and the end user who purchased the product may not be returned to Honeyville Metal, Inc. without the receipt of Return Authorization. Returned products must be shipped to Honeyville Metal, Inc. prepaid unless instructed otherwise and must be clearly marked with a Return Merchandise Authorization (RMA) number that needs to be obtained prior to the return shipment. This warranty supplied by Honeyville Metal, Inc. excludes damage to products while in transit to the destination on all public forms of transportation except the trucking equipment owned and operated by Honeyville Metal, Inc. This warranty does not cover performance guarantees on products, only defects in material and/or workmanship as prior statement. Honeyville Metal, Inc. does honor vendor warranties that extend beyond the one year period and will pass warranty coverage on to the purchaser of that vendor product.

CERTIFICATE OF QUALITY

Every effort has been made to make this equipment the best value you can obtain for your money. All the components have been inspected and assembled. The complete system has been tested to insure proper operation. We sincerely hope this equipment and our efforts meet with your approval. The full extent of Honeyville Metal, Inc. warranty is to correct any defects in material or workmanship in those products manufactured by Honeyville Metal, Inc. Motors and drives, and all electrical and air control parts carry a one-year warranty.

READ INSTRUCTIONS CAREFULLY BEFORE OPERATING!

THIS UNIT WAS FINAL INSPECTED AND PACKED BY _____