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Nederman



**NFP
Bag Filter**

The NFP (1,000-9,000 CFM)

Suitable for collection of many different types of dust including wood, paper and plastic.



OPEN MODEL



CLOSED MODEL

Applications:

High Speed Routing • Sawing • Cutting • Sanding • Single 'Cell' Manufacturing • After-Filters

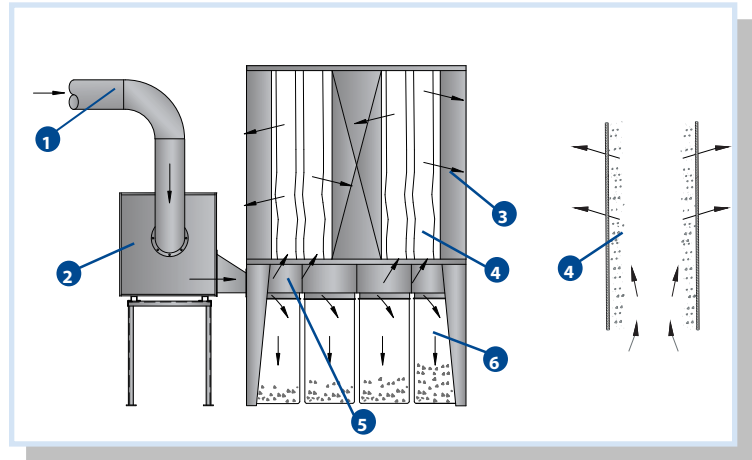
Features

- *Modular*
- *Expandable*
- *Small footprint*
- *Indoor & outdoor units available*
- *Quiet operation*
- *Bag or barrel material collection*

How it Works

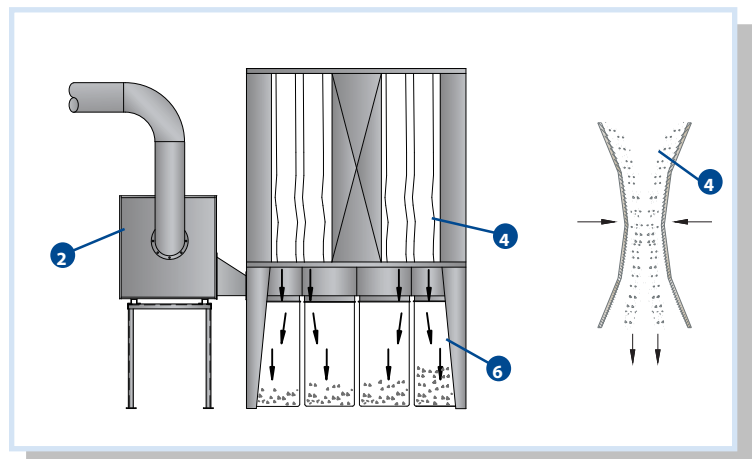
...during normal operation

1. During normal operation, the dust laden air from the plant travels down the supply duct **1**
2. The dirty air then enters the COMBIFAB **2** Material handling fan
3. The dust then enters the hopper section **5** of the filter
4. As air slows down within the hopper, the heavier dust particles fall down into the inside of the filter bags **6**
5. The remaining dust then travels up into the inside of the filter bags **4**
6. The air, which originated from the plant, is now clean and passes through the filter bag into the surrounding atmosphere **3**



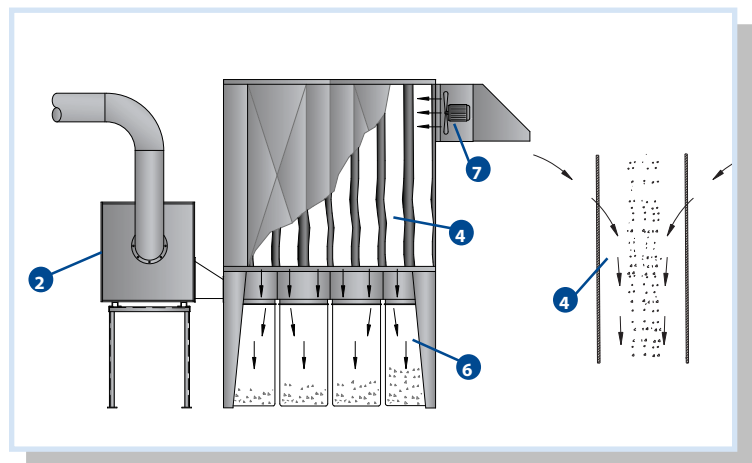
...while cleaning (NFP Open)

1. The NFP Open may only clean “off-line”, when the COMBIFAB fan **2** has stopped rotating
2. The NFP Open is cleaned by applying physical force to the outside of the filter bag **4** which, in effect, shakes them
3. The dust cake, which hangs on the inside of the filter bag, falls into the hopper section and then into the collection bags below **6**

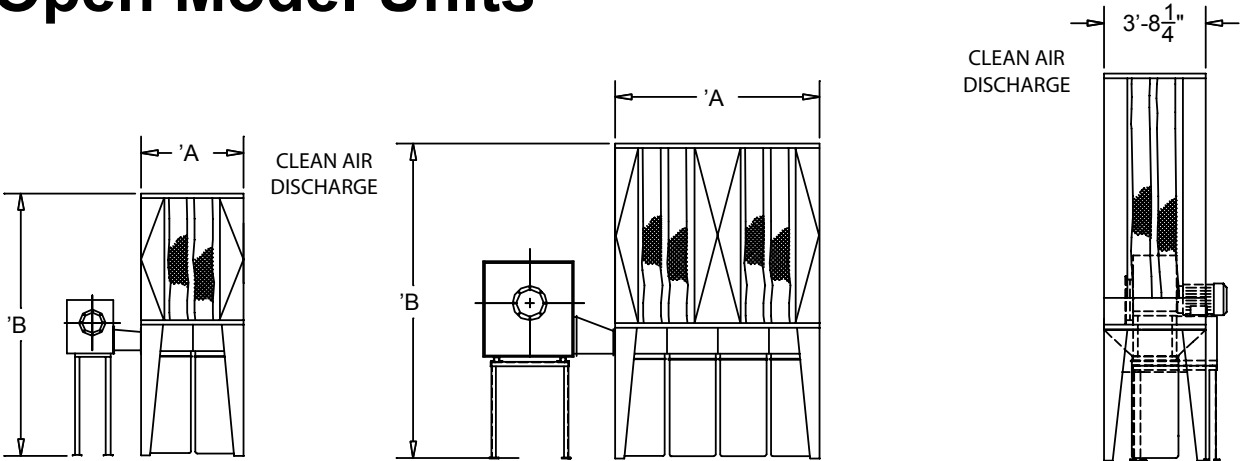


...while cleaning (NFP Closed)

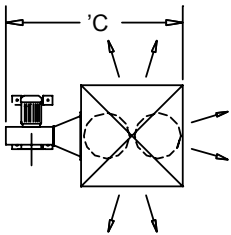
1. The NFP Closed filter must also clean “off-line”, when the COMBIFAB fan **2** has stopped rotating
2. With Semi-Automatic cleaning, the reverse air ‘regeneration’ fan **7** is turned on and off by the operator. When Fully-Automatic cleaning is selected, a PLC Control panel cycles the regeneration fan on and off
3. The dust which remains on the inside of the filter bag, **4** after the initial ‘shake’ is removed by the airflow generated by the cleaning fan
4. The dust which is removed during the cleaning cycle falls into the collection bags/barrels **6**
5. A damper on the hopper inlet closes to prevent dust from blowing back down the duct work



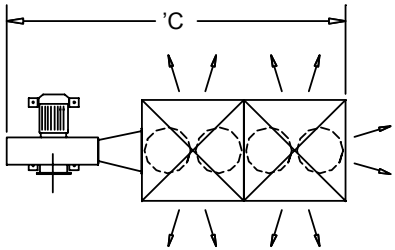
Open Model Units



Elevation of NFP Open



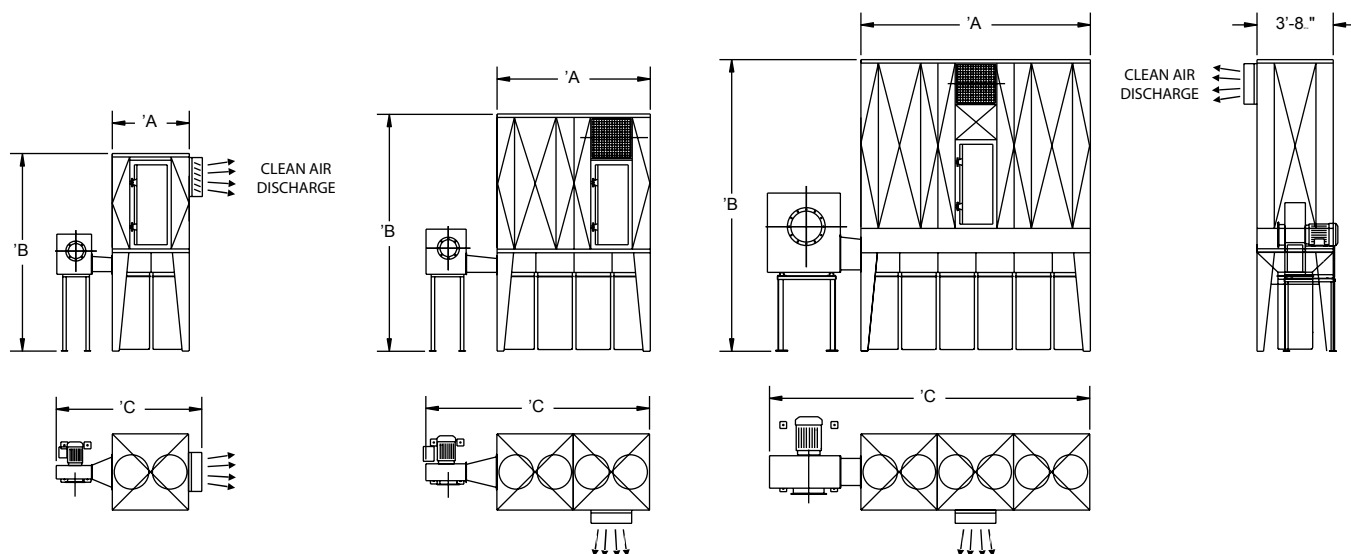
Arrangement of NFP-1M Open



Arrangement of NFP-2A Open

MODEL NUMBER	NO. OF BAGS	FILTER MEDIA (FT ²)	AIR VOLUME (CFM)	'A'	'B'	'C'	STANDARD FAN MODEL	WEIGHT FILTER & FAN (LBS)
NFP-1M-OP	16	162	1,800	3' - 8"	9' - 7"	6' - 2"	S56-224 5HP	435
NFP-1A-OP		230	2,500	3' - 8"	11' - 6"	6' - 8"		457
NFP-1H-OP		288	3,000	3' - 8"	13' - 2"	6' - 8"		571
NFP-2M-OP	32	324	3,600	7' - 5"	9' - 7"	10' - 4"	S40-315 15HP	645
NFP-2A-OP		460	4,500	7' - 5"	11' - 6"	11' - 8"		689
NFP-2H-OP		576	5,000	7' - 5"	13' - 2"	11' - 8"		861

Closed Model Units



Arrangement of NFP-1M Closed

Arrangement of NFP-2A Closed

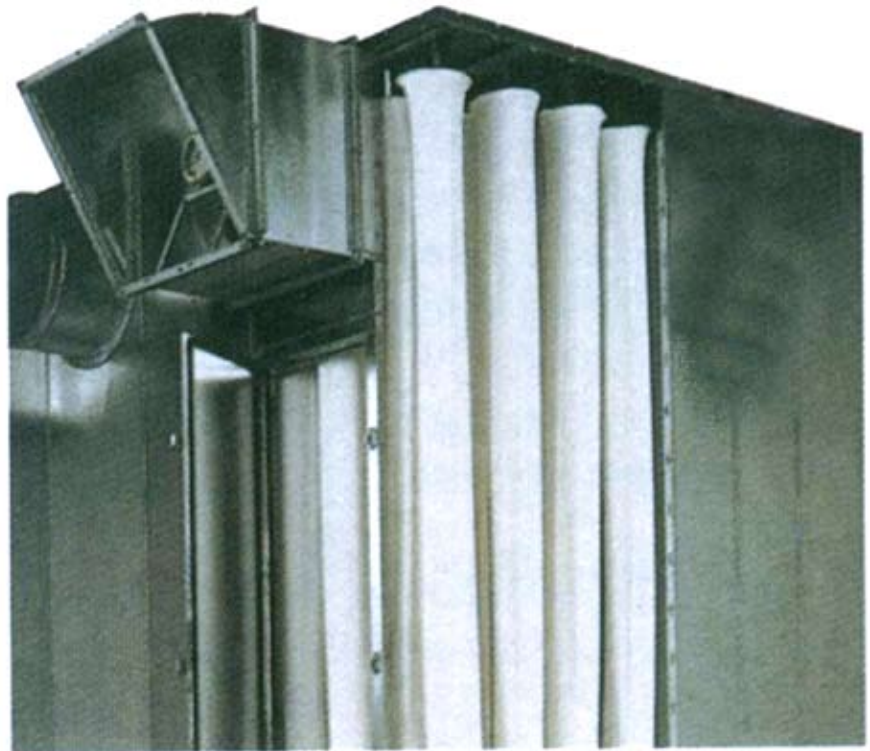
Arrangement of NFP-3H Closed

Elevation of NFP Closed

MODEL NUMBER	NO. OF BAGS	FILTER MEDIA (FT ²)	AIR VOLUME (CFM)	'A'	'B'	'C'	STANDARD FAN MODEL	WEIGHT FILTER & FAN (LBS)
NFP-1M-CL	16	162	1,400	3' - 8"	9' - 7"	6'-10"	S56-224 5HP	535
NFP-1A-CL		230	2,000	3' - 8"	11' - 6"	6'-2"		601
NFP-1H-CL		288	2,500	3' - 8"	13' - 2"	6'-8"	S56-250 10HP	751
NFP-2M-CL	32	324	2,800	7' - 5"	9' - 7"	10'-11"		800
NFP-2A-CL		460	4,000	7' - 5"	11' - 6"	10'-4"		898
NFP-2H-CL		576	5,000	7' - 5"	13' - 2"	11'-8"	1,123	
NFP-3M-CL	48	486	4,200	11' - 1"	11' - 1"	15'-5"	S40-315 15HP	1,094
NFP-3A-CL		690	6,000	11' - 1"	13' - 1"	15'-5"		1,237
NFP-3H-CL		864	7,500	11' - 1"	14' - 8"	15'-6"	S56-450 20HP	1,539

Superbag - The heart of the system

A filter is only as good as the filter bags it uses. This is the component that provides the filtering while allowing clean air to pass through with the least possible resistance and, therefore, the lowest possible consumption of energy-even after several thousand hours of operation.



SUPERBAG, our patented filter bag, is fitted as the standard in all NFP filters.

Efficiency and low energy consumption

Superbag is polyester filter bag. A patented weaving technique in tubular format give the filter bag a surface which can cope with varying dust loads and with virtually any type of dust. Better filtering efficiency is achieved with this unique filter media which provides low pressure drop, and low energy consumption.

Antistatic

SUPERBAG's interwoven carbon fiber wire provides higher anti-static properties - both on the surface and inside - than traditional filter bags. This reduces the risk of fire and explosion as fine particles are removed.

Strength and durability

The special shape of the SUPERBAG helps to ensure that the high efficiency and effectiveness of the NFP filter system is maintained even after long periods of operation. The durability is the result of the patented construction, strong polyester fiber and seamless body. These features also help make cleaning of the filter bag very easy.

Superbag

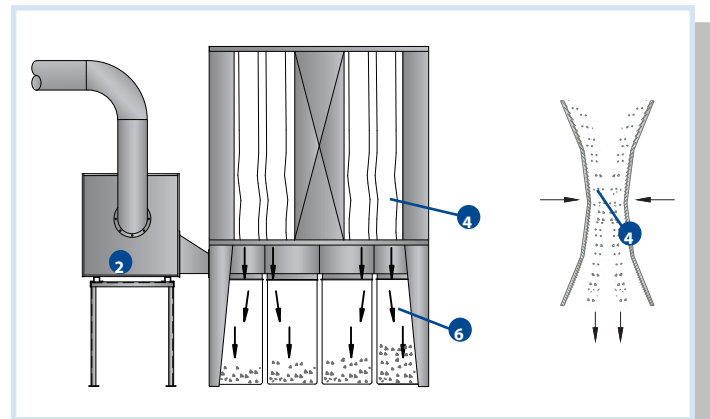
Superbag Specifications

QUALITY	Circular knitted with two integrated layers filter	
MATERIAL	100% polyester	
WEIGHT	16	Ounces/sqft
MAX. OPERATING TEMPERATURE	289	°F
INTERMITTENT PEAK TEMPERATURE	320	°F
MELTING POINT	482-500	°F
BIA CLASSIFICATION	U	95.5 % filtration of .088 gr/ft3 Test dust (90 % 0,2-2,0)
ELECTROSTATIC BEHAVIOR	Surface resistance 2.6×10^7 Ohm Charging towards PA 0.7 kV	DIN 54 345 TEIL 1 TEFO Method 40-77
APPLICATIONS	Filtration of: Shavings, saw dust, sanding dust, lacquering dust from woodworking industry as well as other fibrous materials such as mineral wool, paper strips and dust.	

Cleaning System

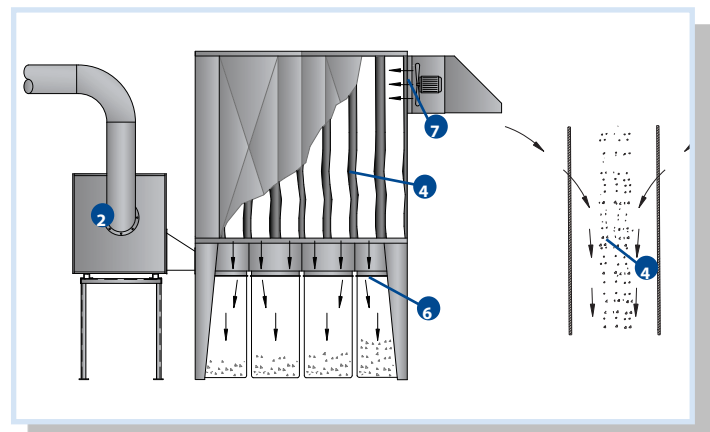
For NFP Open

1. The NFP Open may only clean "off-line", when the Combifab Fan 2 has stopped rotating.
2. The NFP Open is cleaned by applying physical force to the outside of the filter bag 4 which, in effect, shakes them.
3. The dust cake, which hangs on the inside of the filter bag, falls into the hopper section and then into the collection bags below. 6



For NFP Closed

1. The NFP Closed filter must also clean "off-line", when the Combifab fan 2 has stopped rotating.
2. With Semi-Automatic cleaning, the reverse air 'regeneration' fan 7 is turned on and off by the operator. When Fully-Automatic cleaning is selected, a PLC Control panel cycles the regeneration fan on and off.
3. The dust which remains on the inside of the filter bag, 4 after the initial 'shake' is removed by the airflow generated by the cleaning fan.
4. The dust which is removed during the cleaning cycle falls into The collection bags/barrels 6
5. A damper on the hopper inlet closes to prevent dust from blowing back down the duct work.



Component Description

Hopper & Filter Module



Collector Bag



Collector Barrel



Reverse Air Cleaning Fan



Inlet



Door Closed



Door Opened



Optional Clamp-on Barrels

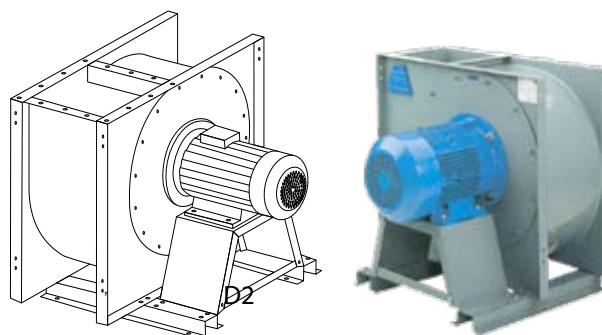


Fire Gate



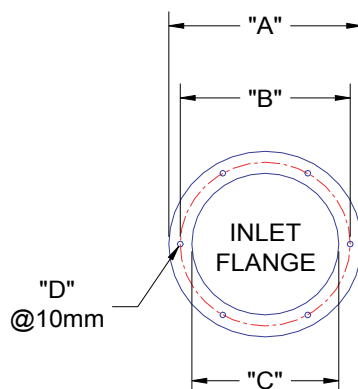
Combifab Fan

Direct Driven 2



MODEL	ARRANGEMENT	HP	CFM RANGE	TOTAL S.P. RANGE	STOCK ITEM
S56-224	D1	5	1,250 - 2,500	12" - 7"	YES
S56-250	D1	10	2,100 - 4,000	13" - 6"	YES
S40-315	D2	15	4,100 - 6,000	12" - 8"	YES
S56-450	D2	20	6,100 - 9,000	11" - 7"	YES

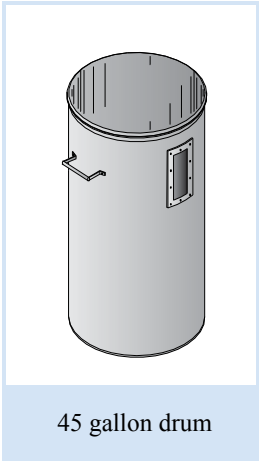
Combifab Fan Flange Configurations



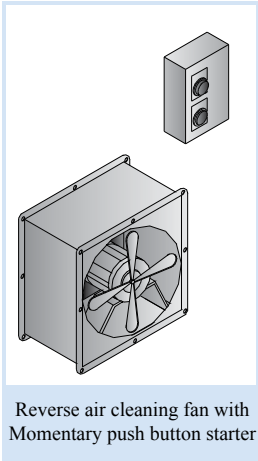
NFP	"A"		"B"		"C"		"D"	HOLE DIA	
	mm	inch	mm	inch	mm	inch	QTY	mm	inch
S56-224	298	11.73	261	10.28	224	8.82	6	10	0.39
S56-250	328	12.91	289	11.38	250	9.84	6	10	0.39
S40-315	383	15.08	349	13.74	315	12.40	8	10	0.39
S56-450	526	20.71	488	19.21	450	17.72	12	10	0.39

Equipment	HP	Drive Arrangement	Full Load Amps			CFM Range	Ext SP (in wg)	Weights	DbA @5'
			208V	230V	460V				
S56-224-D1	5	Direct	14	13	6.5	1250-2500	12"-7"	250	85
S56-250-D1	10	Direct	29	26	13	2000-4000	13.3"-5.3"	350	86
S40-315-D2	15	Direct	42	40	20	3500-6000	11.6"-7.5"	650	73
S56-450-D2	20	Direct	56	52	26	7000-9000	8.8"-6.6"	1000	75

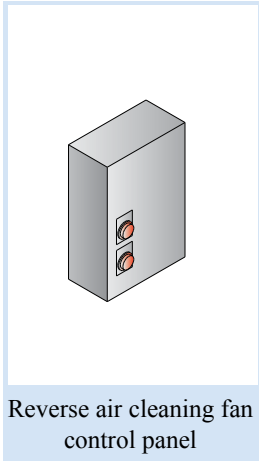
Options



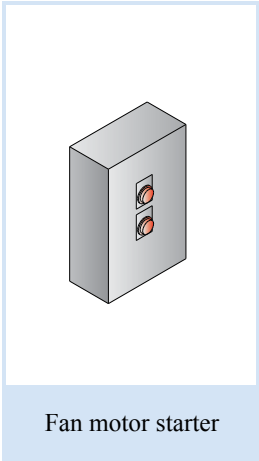
45 gallon drum



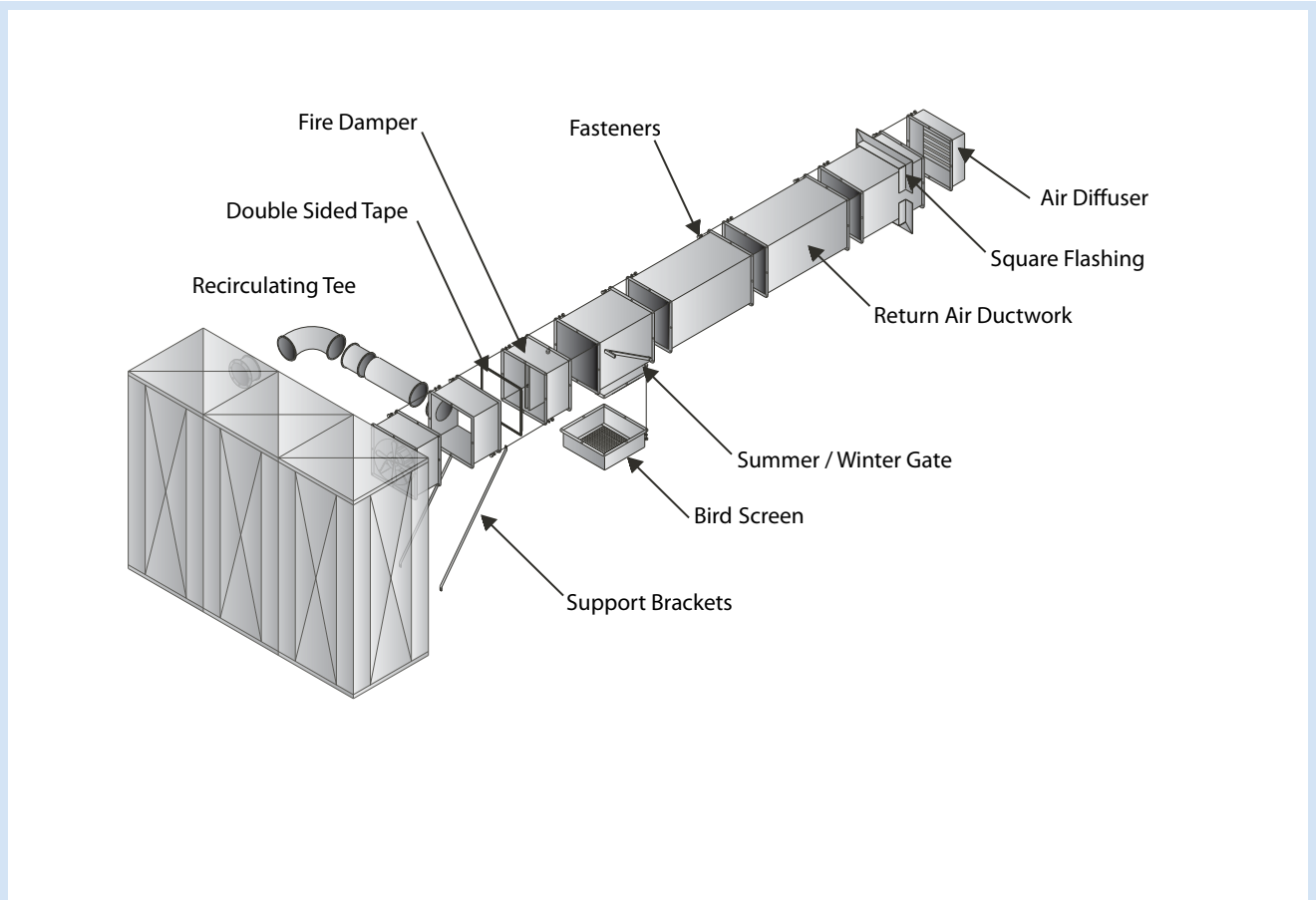
Reverse air cleaning fan with Momentary push button starter



Reverse air cleaning fan control panel



Fan motor starter



Standard return air system

Please note that reverse air cleaning fan is not included in the standard return air package

Installations

Open Model Units



Closed Model Units - Inside



Closed Model Units - Outside



