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Nederman



**CS
Bag Filter**

The CS (4,000-20,000 CFM)

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



Applications:

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

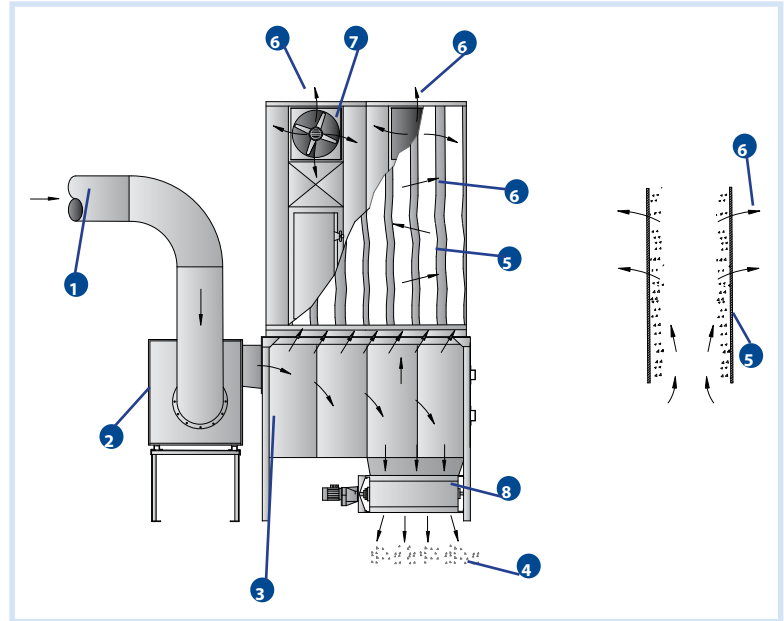
Features

- *Modular*
- *Expandable*
- *Customizable range*
- *Fully automatic operation*
- *Low profile*
- *Quiet operation*
- *No compressed air requirement*
- *Multiple waste collection options*

How it Works

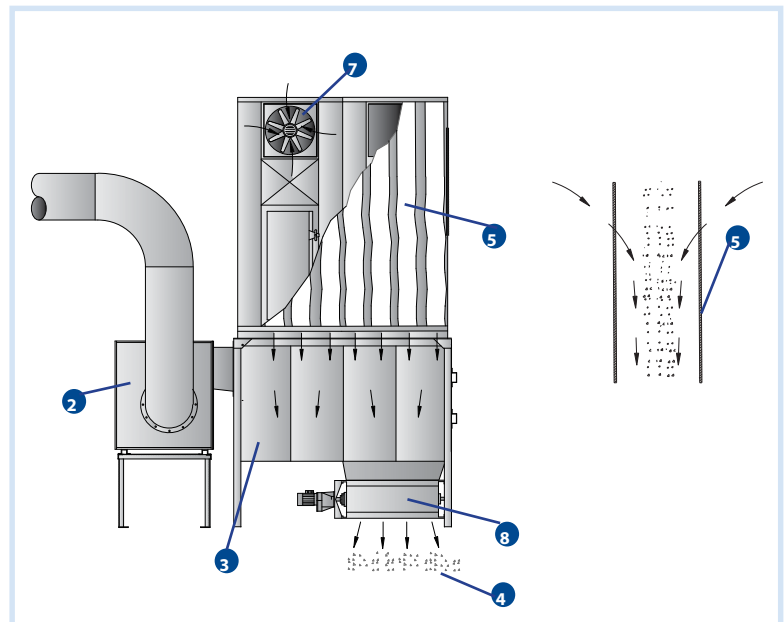
...during normal operation

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 ③ of the filter
4. As air slows down within the hopper, the heavier dust particles fall down into the rotary air lock ⑧ and out of the filter ④
NOTE: Collection bag/barrels may be used in place of the rotary air lock
5. The remaining dust then travels up into the inside of the filter bags ⑤
6. The air, which originated from the plant, is now clean and passes through the filter bag ⑥ out the exhaust port ⑦



...while cleaning

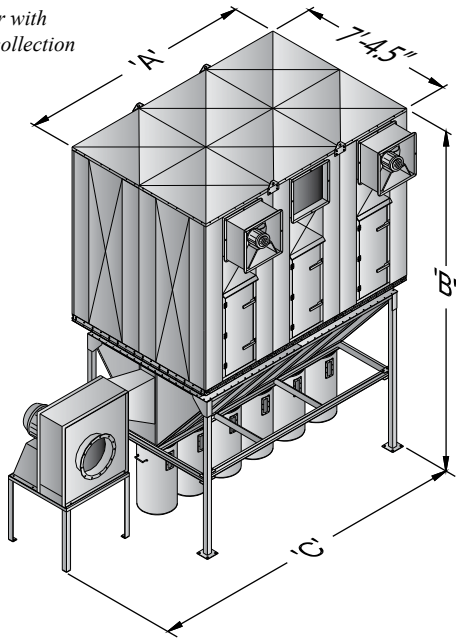
1. The CS filter may be set up to clean during operation or “off-line”, (standard setting) when the COMBIFAB Fan ② has stopped rotating
2. A control panel with a PLC controls the cycle of the reverse air regeneration fan ⑦. The Regeneration fan shakes the filter bags ⑤ causing the dust cake, which hangs on the inside of the filter bag, to fall into the hopper section ③
3. Any dust that remains on the inside of the filter bag after the initial “shake” is removed by the airflow generated by the regeneration fan
4. The dust that is removed during the cleaning cycle falls into the rotary air lock ⑧ and out of the filter ④
NOTE: Collection bags/barrels may be used in place of the rotary air lock



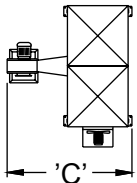
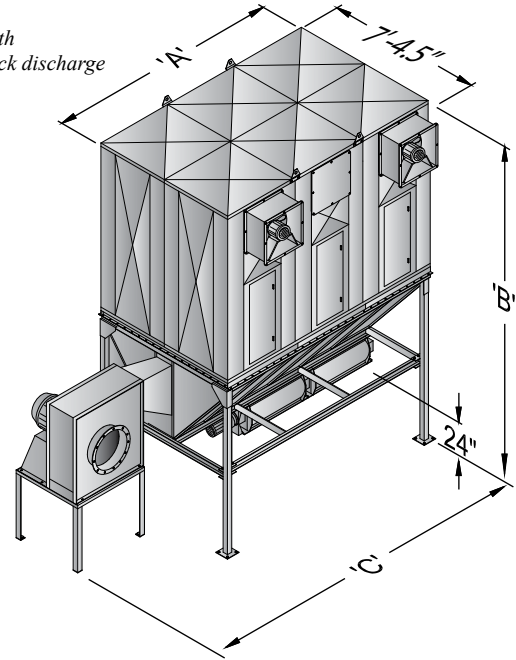
NOTE: A damper located on the hopper inlet closes during the cleaning cycle to prevent dust from blowing back down the duct work.

Ground Mounted Units

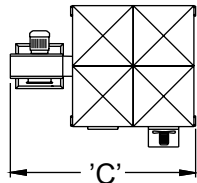
CS filter with barrel collection



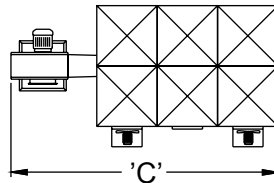
CS filter with 'NRS' airlock discharge



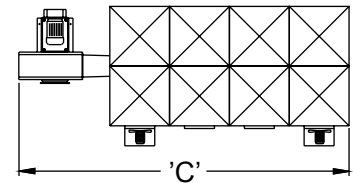
Plan view of CS-1 unit



Plan view of CS-2 unit



Plan view of CS-3 unit

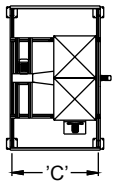
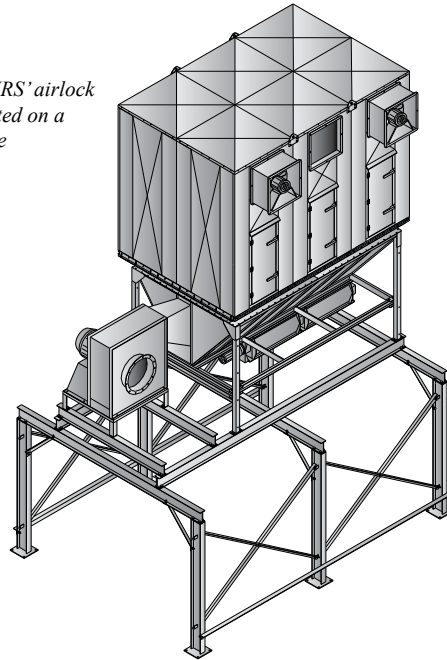


Plan view of CS-4 unit

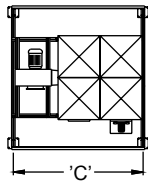
MODEL NUMBER	NO. OF BAGS	FILTER MEDIA (FT2)	AIR VOLUME (CFM)	'A'	'B'	'C'	STANDARD FAN MODEL	WEIGHT FILTER & FAN (LBS)
CS-1-S	32	460	4,000	3' - 8"	15' - 5"	8' - 3"	S56-224 5HP	1,565
CS-1-M	32	575	5,000	3' - 8"	17' - 1"	8' - 2"	S40-315 15HP	1,880
CS-2-S	64	920	8,000	7' - 5"	15' - 5"	12' - 2"	S56-450 20HP	2,980
CS-2-M	64	1,150	10,000	7' - 5"	17' - 1"	12' - 2"	S56-500 40HP	3,000
CS-3-S	96	1,380	12,000	11' - 1"	15' - 5"	17' - 3"		4,605
CS-3-M	96	1,725	15,000	11' - 1"	17' - 1"	17' - 5"		4,635
CS-4-S	128	1,840	16,000	14' - 9"	15' - 5"	21' - 10"	S56-500 50HP	6,400
CS-4-M	128	2,300	20,000	14' - 9"	17' - 1"	22' - 11"	S56-630 75HP	6,915

Structure Mounted Units

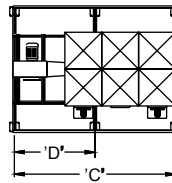
CS filter with 'NRS' airlock discharge mounted on a support structure



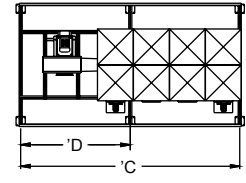
Plan view of CS-1 unit



Plan view of CS-2 unit



Plan view of CS-3 unit

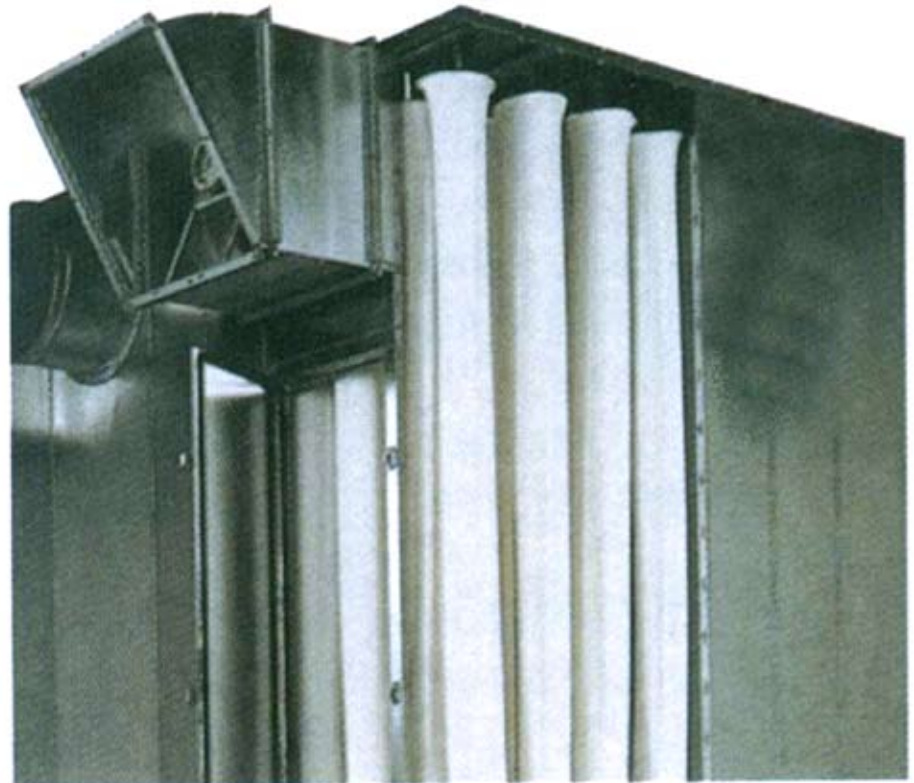


Plan view of CS-4 unit

MODEL NUMBER	NO. OF BAGS	FILTER MEDIA (FT ²)	AIR VOLUME (CFM)	'A'	'B'	'C'	'D'	STANDARD FAN MODEL	WEIGHT FILTER & FAN (LBS)
CS-1-S	32	460	4,000	3' - 8"	15' - 0"	7' - 11"	-	S56-224 5HP	3,585
CS-1-M	32	575	5,000	3' - 8"	16' - 8"	7' - 11"	-	S40-315 15HP	3,890
CS-2-S	64	920	8,000	7' - 5"	15' - 0"	12' - 0"	-	S56-450 20HP	5,145
CS-2-M	64	1,150	10,000	7' - 5"	16' - 8"	12' - 0"	-	S56-500 40HP	5,205
CS-3-S	96	1,380	12,000	11' - 1"	15' - 0"	17' - 2"	8' - 7"		7,740
CS-3-M	96	1,725	15,000	11' - 1"	16' - 8"	17' - 2"	8' - 7"	7,775	
CS-4-S	128	1,840	16,000	14' - 9"	15' - 5"	24' - 0"	12' - 0"	S56-500 50HP	9,760
CS-4-M	128	2,300	20,000	14' - 9"	18' - 3"	24' - 0"	12' - 0"	S56-630 75HP	10,280

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 CS 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 CS 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

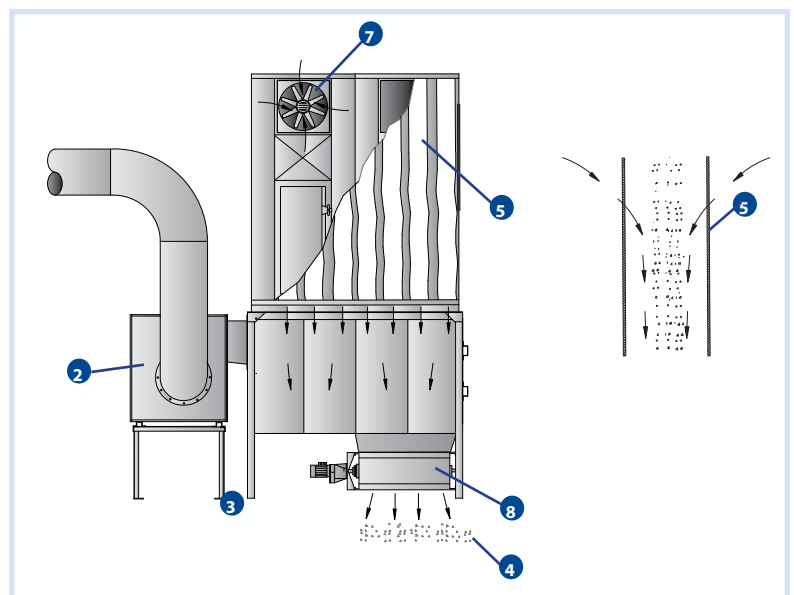
Superbag Specifications

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

CS Cleaning

1. The CS filter may be set up to clean during operation or “off-line”, (standard setting) when the COMBIFAB fan ② has stopped rotating
2. A control panel with a PLC controls the cycle of reverse regeneration fan ⑦ shakes the filter bags ⑤ causing the dust cake, which hangs on the inside of the filter bag, to fall into the hopper section ③
3. Any dust that remains on the inside of the filter bag after the initial “shake” is removed by the airflow generated by the regeneration fan
4. The dust that is removed during the cleaning cycle falls into the rotary air lock ⑧ and out of the filter ④
NOTE: Collection bags/barrels may be used in place of the rotary air lock



NOTE: A damper located on the hopper inlet closes during the cleaning cycle to prevent dust from blowing back down the duct work.

Component Description

Filter Module & Hopper



Baghouse under construction



Airlock on Hopper



Damper



Hopper & Fan



Return Air Ductwork



Summer/Winter Gate



Reverse Air Cleaning Fan



Fire Gate



Spark Detection

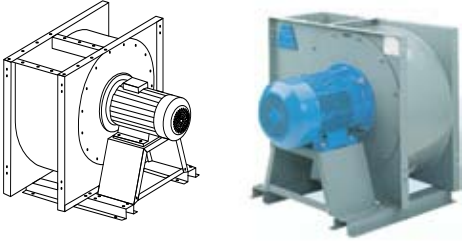


Extinguisher

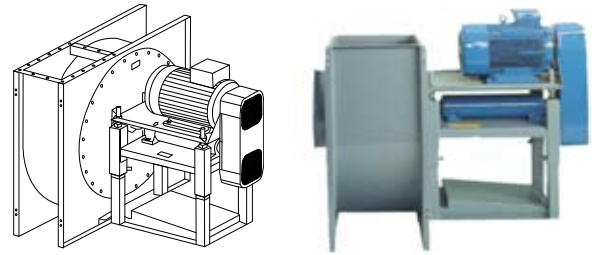


Combifab Fan

Direct Driven 2

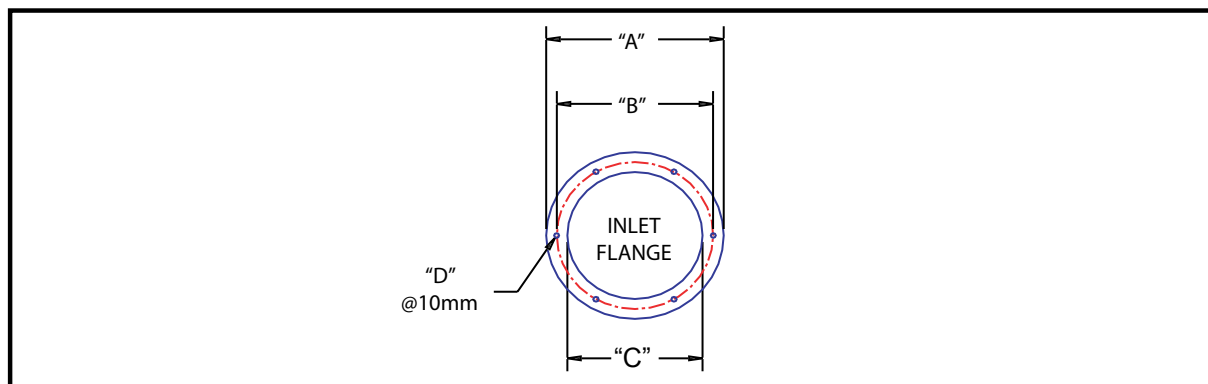


Gear 5



MODEL	ARRANGEMENT	HP	CFM RANGE	TOTAL S.P. RANGE	STOCK ITEM
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
S56-500	D2	40	12,100 - 15,000	11" - 7"	YES
S56-500	D2	50	12,100 - 15,000	12" - 8"	YES
S56-630	D2	75	18,100 - 23,000	14" - 11"	YES
S56-630	D2	75	18,100 - 23,000	14" - 11"	YES

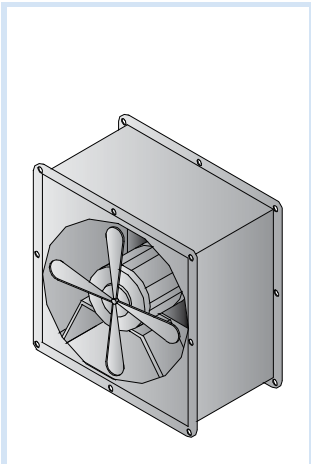
Fan Flange Configurations



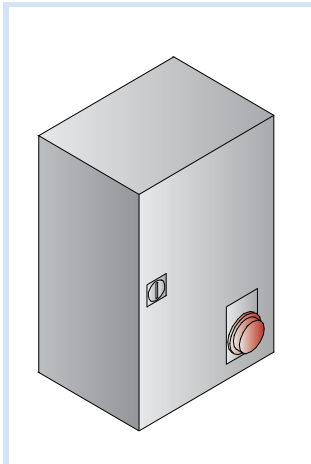
CS	"A"		"B"		"C"		"D"	HOLE DIA	
	mm	inch	mm	inch	mm	inch	QTY	mm	inch
S56-250	328	12.91	289	11.38	250	9.84	6	10	0.39
S40-315	383	15.08	349	13.74	315	12.40	8	10	0.39
S56-450	526	20.71	488	19.21	450	17.72	12	10	0.39
S56-500	576	22.68	538	21.18	500	19.69	12	10	0.39
S56-630	710	27.95	670	26.38	630	24.80	16	10	0.39

Equipment	HP	Drive Arrangement	Full Load Amps			CFM Range	Ext SP (in wg)	Weights	DbA @5'
			208V	230V	460V				
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	7000-10000	8.8"-5.4"	1000	75
S56-500-D2	40	Direct	N/A	100	50	9000-13000	12.3"- 8.5"	1300	75
S56-500-D2	50	Direct	N/A	100	50	12100-15000	12.3"- 8.5"	1400	75
S56-630-D2	75	Direct	N/A	100	50	18100-23000	12.3"- 8.5"	1500	75

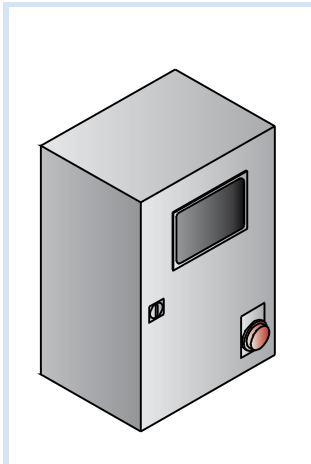
Options



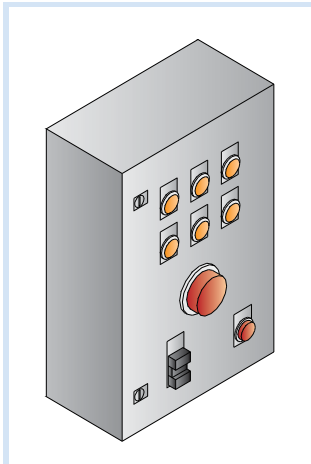
Reverse air cleaning fan



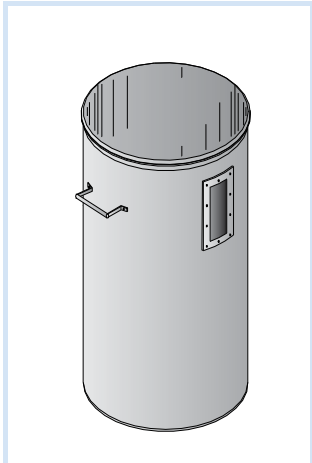
Fan motor starter



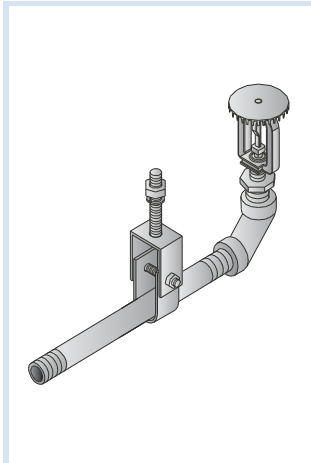
Fan motor soft starter



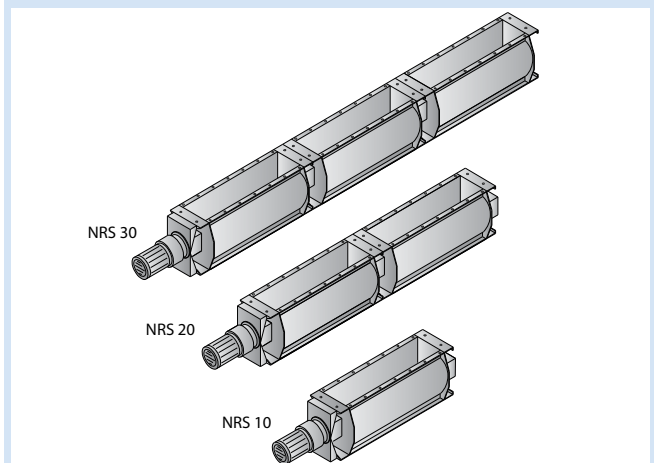
CS filter control panel



45 gallon drum

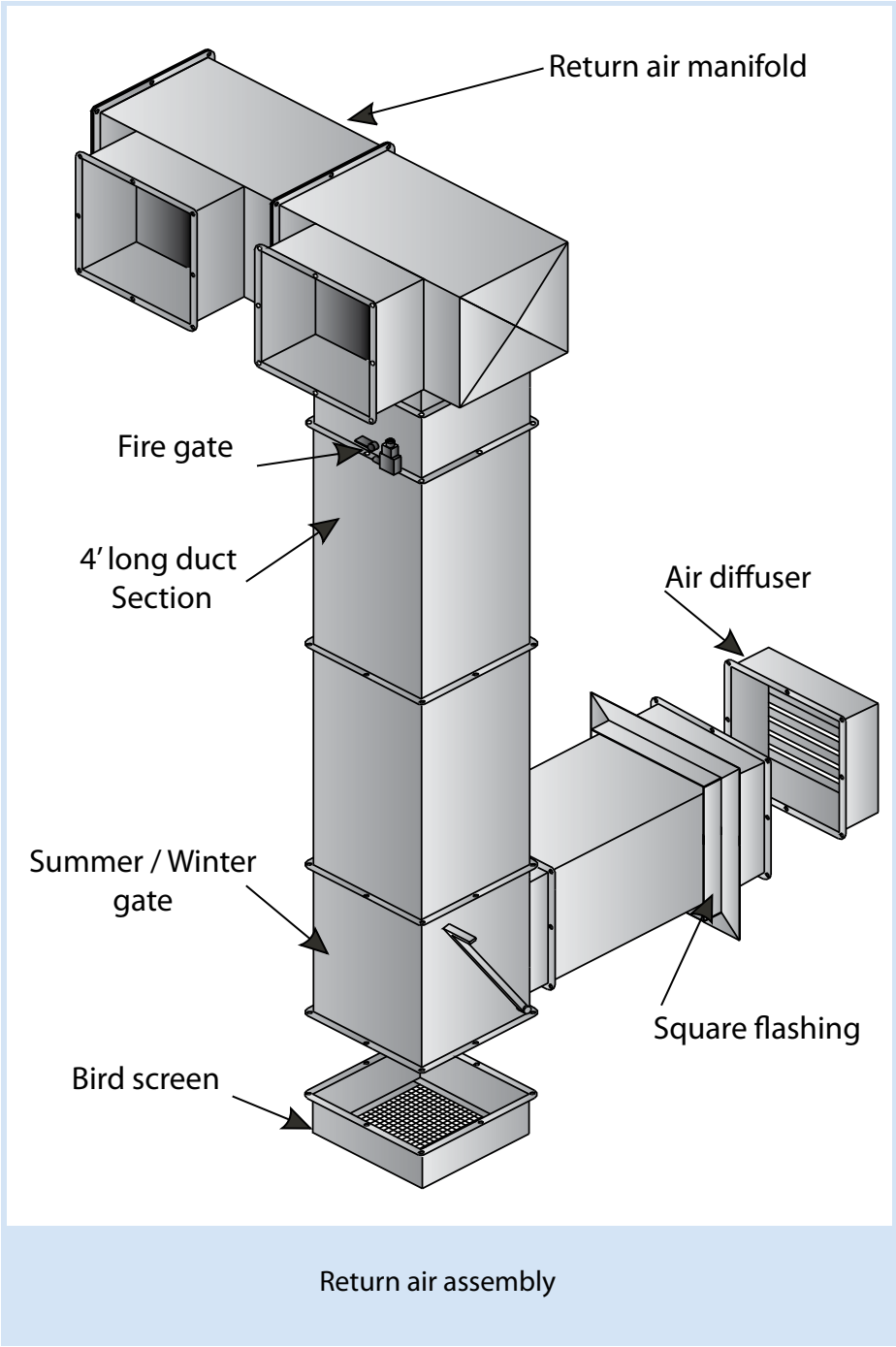


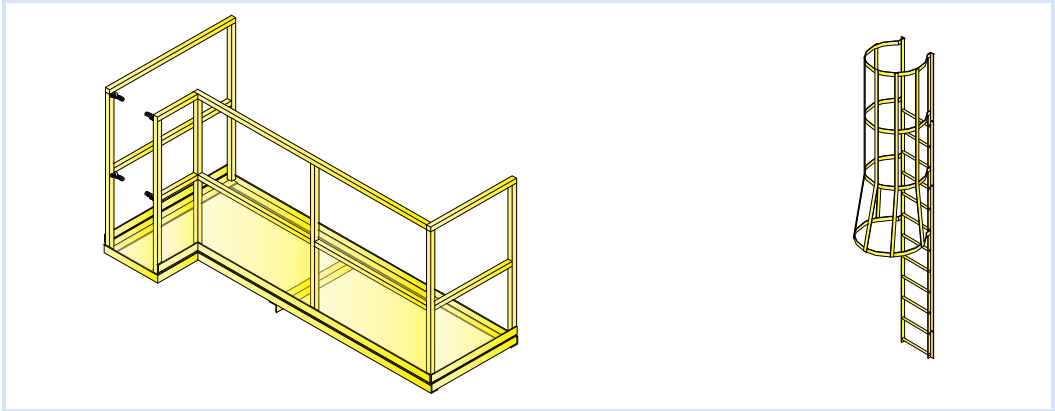
Sprinkler head



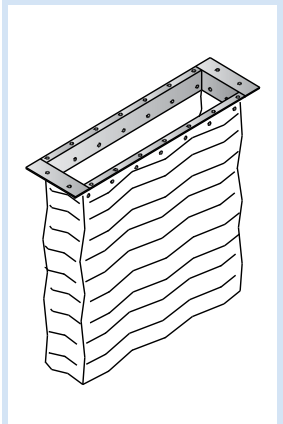
NRS rotary air locks

Options

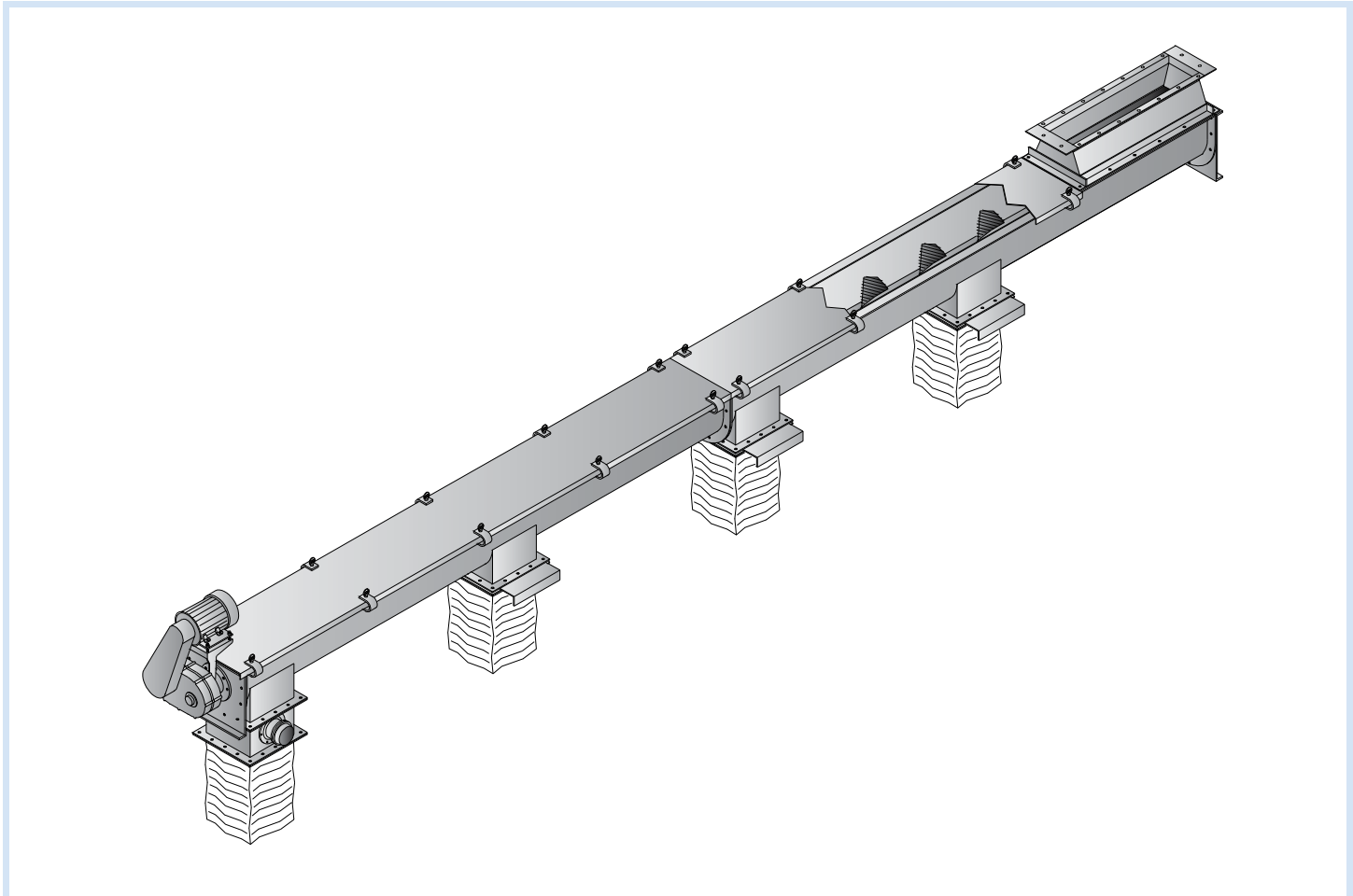




Bag access platform & Access platform ladder



NRS10 vinyl drop chute
4' & 6' long



Dumpster loading leveling auger
Available in 12', 24' & 36' long with multiple drops

Installations

Trailer Loading 15' Structure



Trailer Loading Structure



System with Drop Auger



System with Leveling Auger



Dumpster Loading Structure



Dumpster Loading Structure



Ground Mounted Barrel Loading Unit



Dual Zone Structure



Bringing superior conditions to the workplace and the environment

For more than 60 years Nederman has developed, manufactured and marketed products and system solutions to reduce the strain on the environment and improve working conditions in numerous industries.

Our products and systems have been ground-breaking in industries such as Machining, Metal Fabrication, Automotive, Composite Manufacturing, Food, Paper, Chemical, Pharmaceutical and many others.

Today companies all over the world are using equipment from Nederman.



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