



# JETIII

### **Pulse Jet Dust Collectors**



Emissions from cement kilns



Ventilation for two 43-ton ladle metallurgy stations



Particulate emissions from an electric arc furnace's canopy hood and other building ventilation points



Emission from coal-fired boilers at an oil refinery.

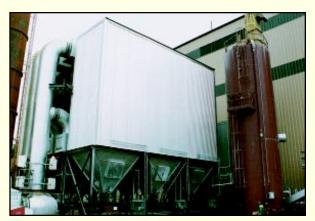
Wheelabrator introduced its first fabric filter in 1913 to trap dust particles from foundry casting-cleaning operations. Today, Wheelabrator JET III® Pulse Jet fabric filter systems operate in virtually every industry.

#### **Our Solutions Become Standards**

By working closely with our customers to help solve their problems, we have pioneered many pulse jet filtration innovations that have achieved a number of significant breakthroughs and industrial application milestones.

Over the years, JET III collectors have made important contributions to controlling emissions for the iron and steel, non-ferrous, coal-fired utility, hazardous waste and trash-to-energy industries.

JET III Pulse Jet technology offers a variety of designs, both custom and pre-engineered, to meet specific needs. Each system is designed for cost-effective, reliable performance. They have been developed to clean emissions from industrial processes ranging from 500 to 1,000,000 ACFM.



Emissions from a municipal solid waste facility.



Emissions from a pulverized coal boiler.



Gaseous and fluoride emissions from an aluminum reduction plant.



Primary and secondary emissions from an AOD vessel

# Ongoing JET III Research and Development

Wheelabrator's technical innovation and extensive knowledge are the result of our continuing commitment to product research and development.

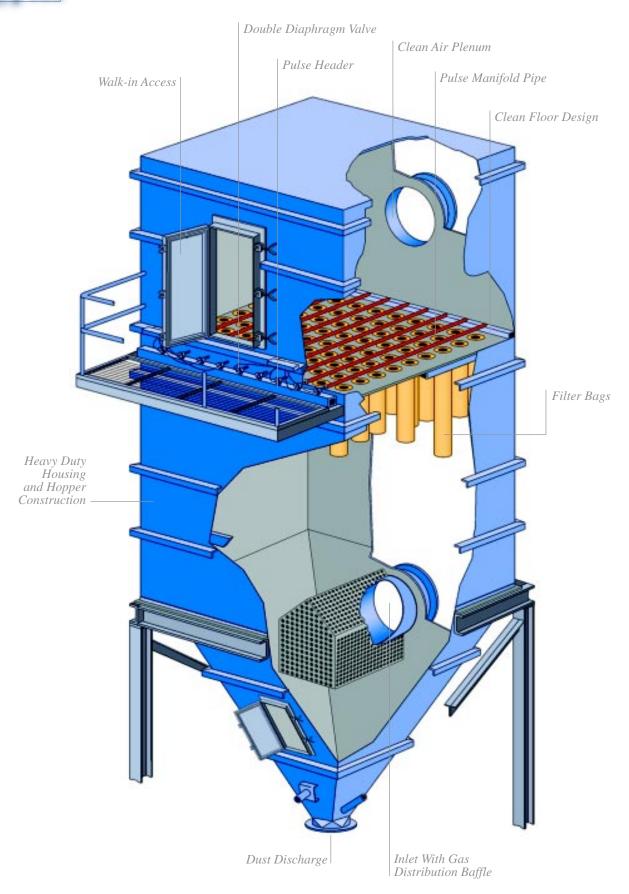
#### **One Source for Clean Air Technology**

Because Wheelabrator is a single-source supplier for all aspects of our JET III fabric filter systems, we can offer our customers the right technology for their application. This broad range of capabilities includes process analysis, system

design, erection, start-up, and complete aftermarket services with comprehensive technical support, service, operator training and replacement parts for our equipment.

For more than 85 years, Wheelabrator has been a leader in fabric filter technology.

## Pulse Jet Dust Collectors



#### **Tube Sheet and Bag Attachment**

- Die-formed cups for added strength
- Positive seal against dust leakage
- Fast bag attachment without tools
- Simple, one-step bagging
- Improves clean-side work area

JET III uses the Wheelabrator drawn-cup tube sheet. The tube sheet is seal-welded into the housing to effect a positive seal.

The JET III tube sheet features patented
Wheelabrator "snap-ring" bag sealing and offers a
fast, one-man, one-step process for bag installation. Our tube sheet,
acting as a natural bagging fixture, allows cage insertion or removal
directly from the tube sheet and bags.



#### **Venturi and Cage**

- Designed and tested to reduce compressed air consumption
- Venturi self-aligns for easy installation and efficient pulse cleaning
- Simple interlock for rapid assembly
- Quality bag support cages

The high-gain throat of the JET III venturi is capable of cleaning more surface area of filter media with less compressed air. This provides effective cleaning of JET III 6-inch diameter bags up to 16-feet long with the collector on stream.

The venturi snap locks on the bag support cage, which is then simply inserted into an installed bag in the tubesheet.



### **Pulse Cleaning System**

- Simple design uses fewer parts
- Easy to maintain
- Reduces energy costs

JET III pulse cleaning hardware is designed to clean with minimum air consumption for maximum energy savings. More filter cloth area is cleaned with each pulse. Field tested on tough industrial applications, the JET III cleaning system contributes to prolonging filter bag life.

#### Header

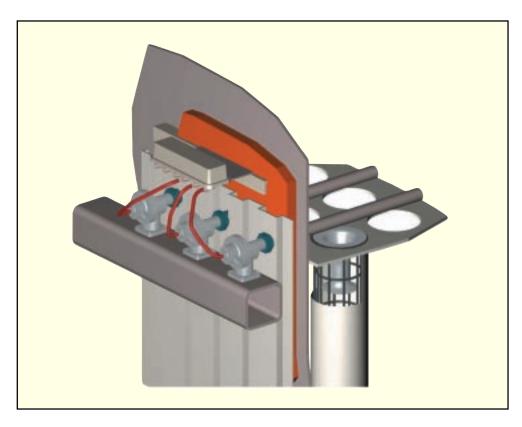
The compressed air header is designed for space saving, positive alignment and convenient mounting of air valves. Header assemblies are sectionalized to permit local isolation for maintenance without shutting down the entire system. The system requires a low line pressure for energy conservation.

#### **Double Diaphragm Air Valve**

Wheelabrator double diaphragm air valves provide the power for cleaning up to 18 bags per row. Fewer valves per square foot of cloth mean less maintenance and fewer parts.

#### **Manifold**

Extensive research and development by Wheelabrator has resulted in a unique, energy-efficient blow pipe for pulse cleaning. The 1-1/2 inch diameter manifold pipes are drilled with offset and variable size holes to ensure maximum even flow through all venturis. The fit of the manifold with the plenum is positive to maintain alignment. For bag inspection and/or removal, the manifold can be removed with a minimum of effort and without special tools.

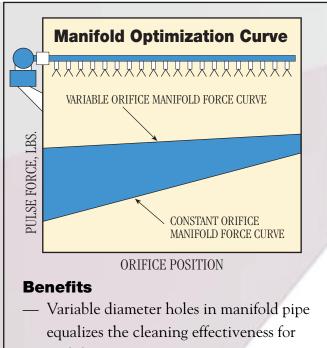


## **On-Line Cleaning**

### **High Collection Efficiency, Low Energy Consumption**

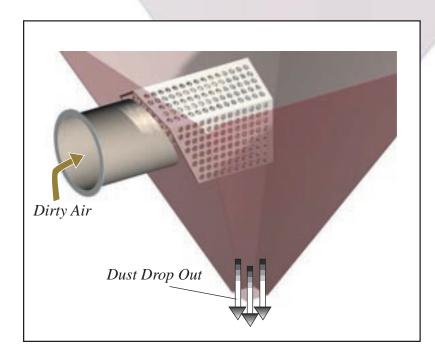
The JET III cleaning system has reserve power that can be utilized during upset conditions, such as higher dust loads. This reserve power also reduces the cleaning demand during normal operation.

The proprietary cleaning system of the JET III has been employed and proven on a multitude of industrial applications.



- each bag in a row.
- Offset holes ensure air jet is loaded in center throat section of venturis.
- Maximizes compressed air utilization.
- Improved cleaning of all bags, lowering pressure drop and improving bag life with less air consumption.

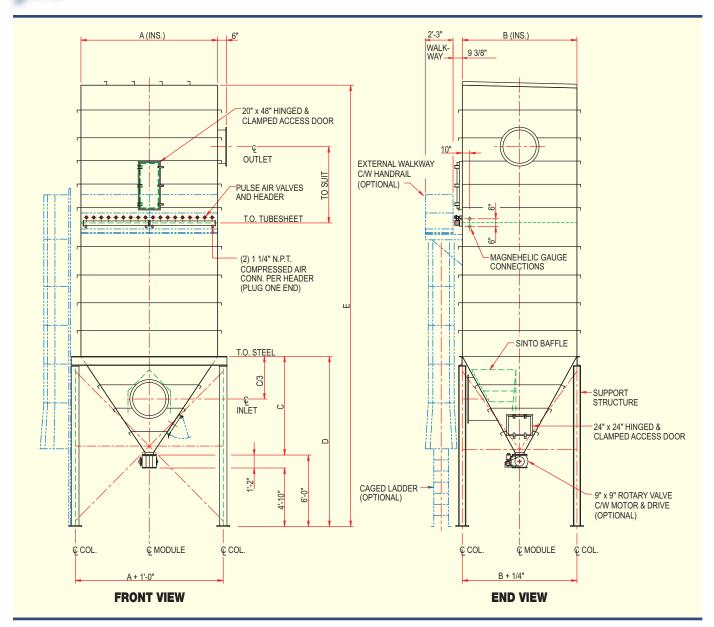
#### **Gas and Particulate Distribution**



The JET III utilizes an engineered diffusion-type baffle that reduces particulate load to the filter bags by deflection, impaction and downward flow into the hopper. Unlike other designs, the diffusion baffle is not affected by centrifugal forces developed in inlet elbows and turbulence with angular entries. The JET III baffle has the advantage of operating the unit at higher filter rates with heavier dust loading, thus minimizing capital costs, space and components.



## **Modular Series - Walk-In Plenum Design**

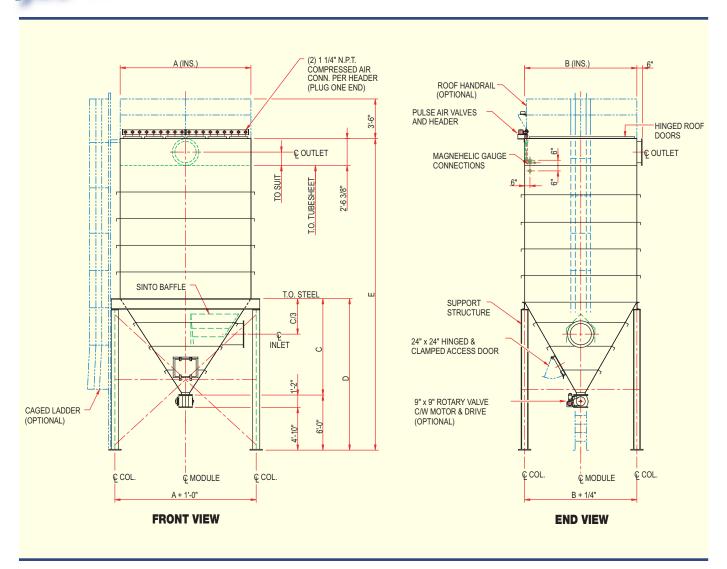


		CL	OTH ARI	EA (SQ. F	T)								ı			
UNIT	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168	A	В	С	D	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168
912 TA-SB	1584	1760	1936	2112	2289	2465	6'-4"	8'-4"	6'-9 3/4"	12'-9 3/4"	31'-8 3/8"	33'-8 3/8"	35'-8 3/8"	37'-8 3/8"	39'-8 3/8"	41'-8 3/8"
1212 TA-SB	2112	2347	2582	2817	3051	3286	8'-4"	8'-4"	6'-9 3/4"	12'-9 3/4"	31'-8 3/8"	33'-8 3/8"	35'-8 3/8"	37'-8 3/8"	39'-8 3/8"	41'-8 3/8"
1512 TA-SB	2641	2934	3227	3521	3814	4108	10'-4"	8'-4"	8'-6 3/4"	14'-6 3/4"	33'-5 3/8"	35'-5 3/8"	37'-5 3/8"	39'-5 3/8"	41'-5 3/8"	43'-5 3/8"
1812 TA-SB	3169	3521	3873	4225	4577	4929	12'-4"	8'-4"	10'-3 1/2"	16'-3 1/2"	35'-2 1/8"	37'-2 1/8"	39'-2 1/8"	41'-2 1/8"	43'-2 1/8"	45'-2 1/8"

		CL	OTH ARI	EA (SQ. F	T)									E		
UNIT	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168	A	В	С	D	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168
915 TA-SB	1980	2201	2421	2641	2861	3081	6'-4"	10'-4"	8'-6 3/8"	14'-6 3/8"	33'-5"	35'-5"	37'-5"	39'-5"	41'-5"	43'-5"
1215 TA-SB	2641	2934	3227	3521	3814	4108	8'-4"	10'-4"	8'-6 3/8"	14'-6 3/8"	33'-5"	35'-5"	37'-5"	39'-5"	41'-5"	43'-5"
1515 TA-SB	3301	3668	4034	4401	4768	5135	10'-4"	10'-4"	8'-6 3/8"	14'-6 3/8"	33'-5"	35'-5"	37'-5"	39'-5"	41'-5"	43'-5"
1815 TA-SB	3961	4401	4841	5281	5721	6161	12'-4"	10'-4"	10'-3 1/2"	16'-3 1/2"	35'-2 1/8"	37'-2 1/8"	39'-2 1/8"	41'-2 1/8"	43'-2 1/8"	45'-2 1/8"



## Modular Series - Roof Access Door Design

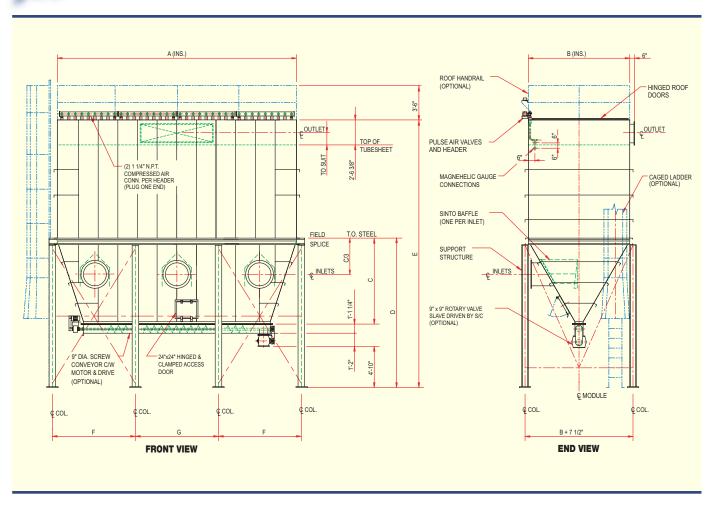


		CL	OTH ARI	EA (SQ. F	T)								ı	E		
UNIT	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168	A	В	С	D	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168
912 RA-SB	1584	1760	1936	2112	2289	2465	6'-4"	8'-7"	7'-0 5/8"	13'-0 5/8"	25'-0 5/8"	26'-0 5/8"	27'-0 5/8"	28'-0 5/8"	29'-0 5/8"	30'-0 5/8"
1212 RA-SB	2112	2347	2582	2817	3051	3286	8'-4"	8'-7"	7'-0 5/8"	13'-0 5/8"	25'-0 5/8"	26'-0 5/8"	27'-0 5/8"	28'-0 5/8"	29'-0 5/8"	30'-0 5/8"
1512 RA-SB	2641	2934	3227	3521	3814	4108	10'-4"	8'-7"	8'-6 3/4"	14'-6 3/4"	26'-6 3/4"	27'-6 3/4"	28'-6 3/4"	29'-6 3/4"	30'-6 3/4"	31'-6 3/4"
1812 RA-SB	3169	3521	3873	4225	4577	4929	12'-4"	8'-7"	10'-3 1/2"	16'-3 1/2"	28'-3 1/2"	29'-3 1/2"	30'-3 1/2"	31'-3 1/2"	32'-3 1/2"	33'-3 1/2"

		CL	OTH ARI	EA (SQ. F	T)								- 1	<b>E</b>		
UNIT	MODEL   MODE									D	MODEL 108	MODEL 120	MODEL 132	MODEL 144	MODEL 156	MODEL 168
915 RA-SB	1980	2201	2421	2641	2861	3081	6'-4"	10'-7"	8'-9 3/8"	14'-9 3/8"	26'-9 3/8"	27'-9 3/8"	28'-9 3/8"	29'-9 3/8"	30'-9 3/8"	31'-9 3/8"
1215 RA-SB	2641	2934	3227	3521	3814	4108	8'-4"	10'-7"	8'-9 3/8"	14'-9 3/8"	26'-9 3/8"	27'-9 3/8"	28'-9 3/8"	29'-9 3/8"	30'-9 3/8"	31'-9 3/8"
1515 RA-SB	3301	3668	4034	4401	4768	5135	10'-4"	10'-7"	8'-9 3/8"	14'-9 3/8"	26'-9 3/8"	27'-9 3/8"	28'-9 3/8"	29'-9 3/8"	30'-9 3/8"	31'-9 3/8"
1815 RA-SB	3961	4401	4841	5281	5721	6161	12'-4"	10'-7"	10'-3 1/2"	16'-3 1/2"	28'-3 1/2"	29'-3 1/2"	30'-3 1/2"	31'-3 1/2"	32'-3 1/2"	33'-3 1/2"



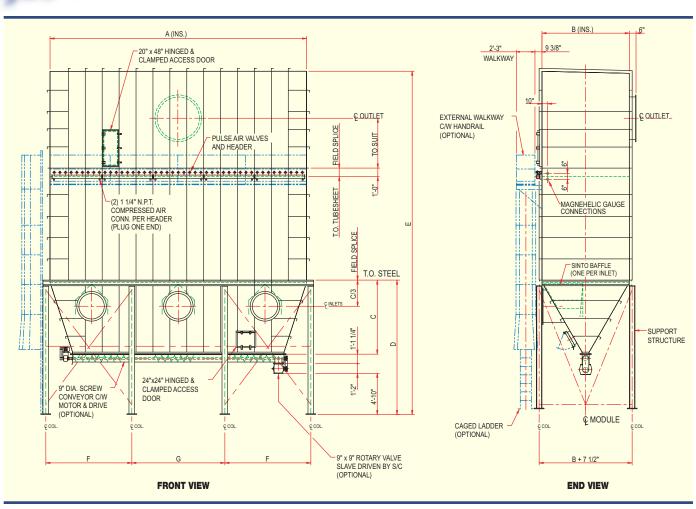
## Extended Series - Roof Access Door Design



		CLC	TH ARE	A (SQ. F	T)														Е								
	MODEL	MODEL	MODEL	MODEL	MODEL	MODEL								MOI	DEL	МО	DEL	MC	DEL	МС	DEL	МО	DEL	MO	DEL		
UNIT	108	120	132	144	156	168	A	В		С			)	10	8	13	20	1	32	1	44	18	56	16	68	F	G
2115 RA-SB	4621	5135	5648	6161	6675	7188	14'-4"	10'-	7"	9'-0	)"	16'-1	1/4"	28'-1	1/4"	29'-1	1/4"	30'-	1 1/4"	31'-	1 1/4"	32'-1	I 1/4"	33'-1	1/4"	7'-8"	
2415 RA-SB	5281	5868	6455	7042	7628	8215	16'-4"						)				1			,	)					8'-8"	
2715 RA-SB	5941	6602	7262	7922	8582	9242	18'-4"																			9'-8"	—
3015 RA-SB	6602	7335	8069	8802	9536	10269	20'-4"																			10'-8"	—
3315 RA-SB	7262	8069	8875	9682	10489	11296	22'-4"																			11'-8"	—
3615 RA-SB	7922	8802	9682	10562	11443	12323	24'-4"																			12'-8"	
3915 RA-SB	8582	9536	10489	11443	12396	13350	26'-4"																			9'-2"	9'-0"
4215 RA-SB	9242	10269	11296	12323	13350	14377	28'-4"																			10'-2"	9'-0"
4515 RA-SB	9902	11003	12103	13203	14303	15404	30'-4"																			10'-2"	11'-0"
4815 RA-SB	10562	11736	12910	14083	15257	16430	32'-4"				П															11'-2"	11'-0"
5115 RA-SB	11223	12470	13716	14963	16210	17457	34'-4"										,		1							12'-2"	11'-0"
5415 RA-SB	11883	13203	14523	15844	17164	18484	36'-4"	10'-	7"	9'-0	-0" 16'-1 1/4"		28'-1	1/4"	29'-1	1/4"	30'-	1 1/4"	31'-	1 1/4"	32'-1	I 1/4"	33'-1	l 1/4"	12'-8"	12'-0"	



## **Extended Series - Walk-In Plenum Design**



	4621         5135         5648         6161         6675         7           5281         5668         6455         7042         7628         8           5941         6602         7262         7922         8582         9           6602         7335         8069         8802         9536         10           7262         8069         8875         9682         10489         11											_														
		CLC	TH ARE	A (SQ. F	T)													E								
	MODEL	MODEL	MODEL	MODEL	MODEL	MODEL			,				МО	DEL	MOD	EL	МО	DEL	мо	DEL	MOI	DEL	MO	DEL		
UNIT	108	120	132	144	156	168	A	В	C			)	10	08	12	0	13	32	- 1	44	15	6	16	88	F	G
2115 TA-SB	4621	5135	5648	6161	6675	7188	14'-4"	10'-4"	8'-9	9"	15'-10	1/4"	34'-5	1/4"	36'-5	1/4"	38'-5	1/4"	40'-	5 1/4"	42'-5	1/4"	44'-5	1/4"	7'-8"	
2415 TA-SB	5281	5868	6455	7042	7628	8215	16'-4"	4	4		-													1	8'-8"	—
2715 TA-SB	5941	6602	7262	7922	8582	9242	18'-4"																		9'-8"	—
3015 TA-SB	6602	7335	8069	8802	9536	10269	20'-4"																		10'-8"	—
3315 TA-SB	7262	8069	8875	9682	10489	11296	22'-4"																		11'-8"	—
3615 TA-SB	7922	8802	9682	10562	11443	12323	24'-4"																		12'-8"	—
3915 TA-SB	8582	9536	10489	11443	12396	13350	26'-4"																		9'-2"	9'-0"
4215 TA-SB	9242	10269	11296	12323	13350	14377	28'-4"																		10'-2"	9'-0"
4515 TA-SB	9902	11003	12103	13203	14303	15404	30'-4"																		10'-2"	11'-0"
4815 TA-SB	10562	11736	12910	14083	15257	16430	32'-4"																		11'-2"	11'-0"
5115 TA-SB	11223	12470	13716	14963	16210	17457	34'-4"	1	1		- 1			1		1				1		•		1	12'-2"	11'-0"
5415 TA-SB	11883	13203	14523	15844	17164	18484	36'-4"	10'-4"	8'-9	3'-9" 15'-10 1/4"		34'-5	1/4"	36'-5	1/4"	38'-5	1/4"	40'-	5 1/4"	42'-5	1/4"	44'-5	1/4"	12'-8"	12'-0"	

		CLC	TH ARE	A (SQ. F	T)													Е								
	MODEL	MODEL	MODEL	MODEL	MODEL	MODEL			,	_			MOI	DEL	MOD	EL	MOI	DEL	МО	DEL	MOI	DEL	MO	DEL		
UNIT	108	120	132	144	156	168	A.	В	С	;	D		10	8	12	0	13	32	14	44	15	6	16	88	F	G
2117 TA-SB	5237	5819	6400	6983	7566	8146	14'-4"	11'-8"	9'-1	0"	16'-11	16'-11 1/4"		1/4"	37'-6	1/4"	39'-6	1/4"	41'-6	3 1/4"	43'-6	1/4"	45'-6	1/4"	7'-8"	
2417 TA-SB	5985	6650	7314	7980	8647	9310	16'-4"		4			4		1	- 1	١		1	- 1	١		4		•	8'-8"	<b>—</b>
2717 TA-SB	6734	7482	8228	8978	9728	10474	18'-4"		П																9'-8"	—
3017 TA-SB	7481	8313	9143	9975	10808	10269	20'-4"																		10'-8"	
3317 TA-SB	8229	9144	10057	10973	11889	12801	22'-4"																		11'-8"	
3617 TA-SB	8977	9976	10971	11970	12970	13965	24'-4"																		12'-8"	
3917 TA-SB	9726	10807	11886	12968	14051	15129	26'-4"																		9'-2"	9'-0"
4217 TA-SB	10474	11638	12800	13965	15132	16293	28'-4"																		10'-2"	9'-0"
4517 TA-SB	11222	12470	13714	14963	16213	17457	30'-4"																		10'-2"	11'-0"
4817 TA-SB	11970	13301	14628	15960	17293	18620	32'-4"		П																11'-2"	11'-0"
5117 TA-SB	12718	14132	15543	16958	18374	19784	34'-4"	•	•		•			1	1	1		1	1	1		Ý		1	12'-2"	11'-0"
5417 TA-SB	13466	14963	16457	17955	19455	20948	36'-4"	11'-8"	9'-1	0"	16'-11	1/4"	35'-6	1/4"	37'-6 '	1/4"	39'-6	1/4"	41'-6	3 1/4"	43'-6	1/4"	45'-6	1/4"	12'-8"	12'-0"





### **Applications**

- Foundry Processes
- Steelmaking and Non-Ferrous Processes
- Secondary Metal Processes
- Chemical and Mineral Processes
- Utility or Industrial Coal-Fired Boilers
- Municipal Solid Waste Incinerators
- General Ventilation
- Dryers, Coolers, Kilns

### **Continuing Support**

Our Aftermarket Services Department can:

- Monitor, test and inspect your collector on site
- Train your operating and maintenance personnel
- Provide replacement parts
- Upgrade or rebuild your equipment



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