# RotoClone® N



POWERED BY

# REDClean® Media

Design | Engineering | Manufacturing | Maintenance | Spare Parts







## The Evolution of Environmental Solutions

For more than 90 years, AAF International has been providing filtration solutions for industrial processes around the world.

Throughout our rich history, AAF International has pioneered many of the techniques used today to control airborne dust, fume and vapor in virtually every production process. Our constant passion for innovative solutions has led us to offer the most reliable, efficient and durable products available on the market today.

AAF International, a member of DAIKIN Group, also believes in valuing our people, communities and environment. Our ISO 9001 certified facilities utilize lean and green manufacturing to deliver products with short lead times and minimal environmental impact. Our people centered management philosophy enables us to deliver the best customer service and also give back to the communities in which we serve and live.







## The RotoClone™ Advantage

The RotoClone™ N combines high efficiency, low maintenance costs, simplicity, flexibility and low water usage to maximize performance. The RotoClone™ N has solved thousands of dust collection problems around the world.

#### **Benefits**

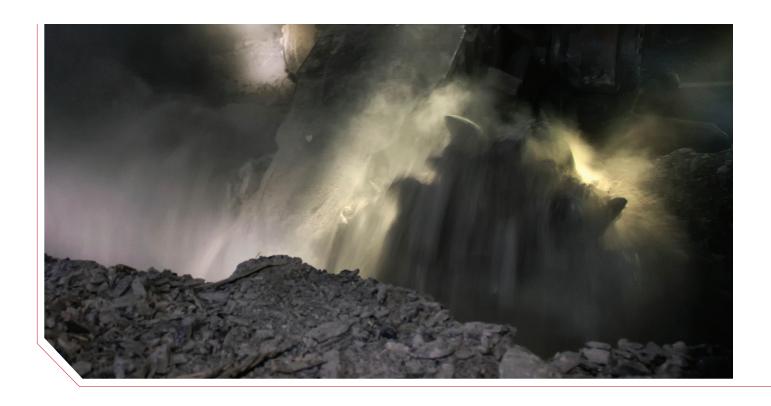
- Low maintenance
- Low water usage
- Efficient
- Robust
- Proven
- Flexible
- Versatile

#### **Features**

- Designed for continuous operation with minimum service
- Available for both normal and heavy-duty service
- Access doors with quick-opening handles provide accessibility to the interior
- Minimizes the build-up of dust deposits

The RotoClone $^{\text{T}}$  N is a flexible design for a wide range of operating conditions with minimal servicing requirements. Collection efficiencies, including the most challenging particle sizes, are equal to or better than any wet dust collector with comparable energy consumption.





## **Applications**

The RotoClone™ N is a cost effective dust collection solution that requires no compressed air, replacement cartridges or fabric bags. Capable of handling hot, moist gas streams and sticky or explosive dusts with no moving parts (excluding the arrangement C sludge ejector) while ensuring performance is maintained without interruption or downtime as typically demanded in many of the following industrial processes:

#### **Industrial Processes**

- Plastic and rubber (molding and grinding)
- Rock and related products
  Pesticides/fertilizer
- Coal dust
- Powder paint
- Tobacco

#### **Chemical**

- Plastics and rubber
- Inorganic chemicals
- Paint pigments

### Woodworking

- Furniture
- Cabinetry

#### Metalworking

- Machining
- Blasting
- "Light metals" processing
- Recycling centers
- Buffing
- Foundry
- Grinding/polishing

#### **Pharmaceutical**

- Tablet coating
- Tablet presses
- Material handling
- Packaging

#### Metalallurgical



## Available Options and Accessories

- Corrosion protection package
- Automatic water level controls
- Automatic drain valves
- Top mounted fan
- 304 stainless steel construction
- Flat bottom design
- Chain and paddle design
- Hopper drain design

#### **Accessories**

- Alternate fan
- Fan silencer
- AAF control center
- Custom paint systems
- HEPA/ASHRAE filters and housings

## RotoClone™ N Arrangements

The RotoClone™ N can be engineered to accommodate special conditions or space limitations.

#### **Arrangement B - Manual Sludge Removal**

The RotoClone™ N, Arrangement B, is designed for reduced height and low initial cost. Since collected material must be removed manually, this arrangement is appropriate for applications where dust loadings are light. In units with a single impeller, one side of the reservoir is sloped to facilitate removal of the collected material. With the double impeller units, it is usually necessary to drain the reservoir for sludge removal. (Shown below)







#### **Arrangement C - Automatic Sludge Removal**

The RotoClone™N, Arrangement C, is designed to reduce manual removal of collected material. It is recommended for moderate and heavy dust loads, for applications requiring continuous 24-hour service, and where manual removal of the sludge would be unreliable or cost prohibitive. Steep sides in the hopper minimize material build-up, while the sludge ejector mechanism provides easy removal of collected material. (Shown below)







## **Arrangement D - Continuous Sluicing**

RotoClone™ N, Arrangement D, is designed to sluice collected material through the hopper into a process or disposal point. Sluicing may be continuous or intermittent. This arrangement is recommended for material handling applications in the chemical and rock products industries; and dust abatement on crushers, screens and transfer points for mining and rock products. To maintain the scrubbing water at the proper operating level, a constant supply of make-up water and drainage is required. (Shown below)







#### Arrangement B

Size	Height (H)		Width (W)		Depth (L)	
	in	mm	in	mm	in	mm
1-1/2	105-1/2	2,680	51-1/2	1,308	47-7/8	1,216
2-1/2	105-1/2	2,680	51-1/2	1,308	47-7/8	1,216
4	109-1/2	2,781	54-1/2	1,384	65-1/8	1,654
6	118-1/2	3,010	62-1/2	1,588	88-7/8	2,257
8	167-1/2	4,254	79-1/4	2,013	91-1/4	2,318
12	183-1/2	4,661	103-1/4	2,622	91-1/4	2,318
16	187-1/2	4,762	127-1/4	3,232	91-1/4	2,318
20	187-1/2	4,762	151-1/4	3,841	91-1/4	2,318
24	207-1/2	5,271	175-1/4	4,651	99-1/4	2,521
28	207-1/2	5,471	199-1/4	5,061	99-1/4	2,521

#### Arrangement C

	Height (H)		Width (W)		Depth (L)	
Size	in	mm	in	mm	in	mm
1-1/2	142	3,607	90-7/8	2,308	47-7/8	1,216
2-1/2	142	3,607	90-7/8	2,308	47-7/8	1,216
4	146	3,708	90-7/8	2,308	64-7/8	1,724
6	155	3,937	90-7/8	2,308	88-7/8	2,257
8	191-3/8	4,861	98-9/16	2,503	91-1/4	2,318
12	207-3/8	5,267	122-7/16	3,109	91-1/4	2,318
16	204-1/2	5,194	147-13/16	3,755	91-1/4	2,318
20	204-1/2	5,194	171-13/16	4,364	91-1/4	2,318
24	224-1/2	2,702	195-15/16	195-15/16 4,978		2,521
28	224-1/2	2,702	195-15/16	4,978	99-1/4	2,521
32	224-1/2	2,702	195-15/16 4,978		99-1/4	2,521
36	214-1/2	5,448	263-1/4	6,686	99-1/4	2,521
40	220-1/2	5,601	287-1/4	7,296	99-1/4	2,521
44	220-1/2	5,601	315-3/8	8,011	99-1/4	2,521
48	220-1/2 5,601		339-3/8 8,620		99-1/4	2,521

#### Arrangement D

Size	Height (H)		Width	ı (W)	Depth (L)		
Size	in	mm	in	mm	in	mm	
1-1/2	125-7/8	3,197	52	1,321	31-3/4	806	
2-1/2	125-7/8	3,197	52	1,321	31-3/4	806	
4	129-7/8	3,299	55	1,397	48-3/4	1,238	
6	150-7/8	3,832	63	1,600	72-3/4	1,848	
8	183-3/8	4,658	79-1/2	2,019	91-1/4	2,318	
12	206-3/8	5,242	103-1/2 2,629		91-1/4	2,318	
16	219-3/8	5,572	127-1/2	3,238	91-1/4	2,318	
20	222-3/8	5,648	149-1/2	3,797	91-1/4	2,318	
24	230-3/8	5,849	175-1/2	4,458	99-1/4	2,521	
28	230-3/8	5,849	199-1/2	5,067	99-1/4	2,521	
32	242-3/8	6,156	223-1/2	5,677	99-1/4	2,521	
36	232-3/8	5,903	247-1/2	6,286	121	3,073	
40	238-3/8	6,055	271-1/2 6,896		121	3,073	
44	238-3/8	6,055	295-1/2	7,506	121	3,073	
48	238-3/8	6,055	319-1/2	8,116	121	3,073	

#### NOTES

- 1. See AAF Sales drawings for complete dimensions.
- 2. Dimensions do not include fan.
- 3. Dimensions are approximate.

## Dimensions and Specifications

### **Normal Water Supply Rates**

RotoClone™ N

Size	Arrangement B (GPM/LPM) 20 PSI/1.39 barg	Arrangement C (GPM/LPM) 20 PSI/1.39 barg	Arrangement D (GPM/LPM) 40 PSI/1.39 barg	
1.5	.5/1.89	.5/1.89	6/22.71	
2.5	.5/1.89	.5/1.89	6/22.71	
4	.5/1.89	.5/1.89	8/30.28	
6	.5/1.89	.5/1.89	8/30.28	
8	.5/1.89	1/3.79	11/41.64	
12	.5/1.89	1/3.79	14/53	
16	.5/1.89	1/3.79	22/83.28	
20	1/3.79	1.5/5.68	22/83.28	
24	1/3.79	1.5/5.68	34/128.7	
28	1/3.79	2.5/9.46	40/151.42	
32		2.5/9.46	40/151.42	
36		2.5/9.46	40/151.42	
40		2.5/9.46	40/151.42	
44		2.5/9.46	60/227.12	
48		2.5/9.46	60/227.12	

NOTE With high temperature air, evaporation must be compensated for by increased water rates. A safe approximation will be .2 GPM/.76 LPM of additional water per 1,000 CFM/1,700 m<sup>3</sup>/hr for each 100°F/38°C of temperature reduction in the RotoClone™

#### **Shipping and Operating Weights**

RotoClone<sup>™</sup> N

	Arrangement B			Arrangement C			Arrangement D		
Size	Operating Weight w/ Fan (lbs/kg)	Water Capacity (Gallons/L)	Shipping Weight (lbs/kg)	Operating Weight w/ Fan (lbs/kg)	Water Capacity (Gallons/L)	Shipping Weight (lbs/kg)	Operating Weight w/ Fan (lbs/kg)	Water Capacity (Gallons/L)	Shipping Weight (lbs/kg)
1.5	2,600/1,180	90/340	1,600/725	6,300/2,860	300/1,136	2,300/1,043	3,700/1,679	120/455	2,100/953
2.5	2,800/1,270	90/340	1,700/770	6,400/2,900	300/1,136	2,400/1,090	3,800/1,724	120/455	2,200/998
4	4,200/1,900	140/530	2,300/1,040	9,500/4,310	470/1,780	3,200/1,451	5,200/2,360	180/682	2,800/1,270
6	5,900/2,680	220/830	3,000/1,360	11,400/5,170	540/2,045	4,200/1,905	8,100/3,674	330/1,250	3,700/1,680
8	8,200/3,720	295/1,115	4,200/1,905	13,200/5,990	530/2,006	6,100/2,767	10,700/4,853	390/1,476	5,500/2,495
12	11,200/5,080	440/1,665	5,300/2,400	16,500/7,485	650/2,461	7,800/3,538	15,000/6,804	605/2,290	6,900/3,130
16	14,000/6,350	510/1,930	7,200/3,265	28,500/12,930	1,370/5,186	10,200/4,627	20,800/9,435	900/3,407	8,800/3,992
20	17,900/8,120	730/2,760	8,100/3,675	33,600/15,240	1,650/6,246	11,600/5,262	26,800/12,156	1,250/4,732	10,100/4,582
24	21,900/9,930	880/3,330	10,100/4,580	40,300/18,280	1,950/7,382	14,300/6,486	31,400/14,243	1,290/4,883	14,200/6,441
28	24,900/11,295	1,025/3,880	11,900/5,340	46,000/20,865	2,220/8,404	16,400/7,440	36,800/16,692	1,510/5,716	16,600/7,530
32	_	-	_	51,100/23,180	2,500/9,464	17,700/8,028	43,500/19,732	1,925/7,287	17,800/8,074
36	_	-	_	56,300/25,540	2,775/10,505	19,300/8,755	50,000/22,680	2,250/8,517	20,000/9,072
40	-	-	_	64,500/29,255	3,050/11,546	23,800/10,795	58,300/26,445	2,500/9,464	24,900/11,295
44	_	-	_	70,200/31,845	3,330/12,605	25,800/11,702	62,900/28,531	2,690/10,183	27,000/12,247
48	-	-	-	76,100/34,520	3,610/13,665	27,900/12,655	67,400/30,572	2,880/10,902	29,000/13,155

- 1. Weight based on maximum sludge capacity with a sludge weight of 100 lbs. per cubic foot/1,604 kg per cubic meter
- 2. Shipping weight includes estimated weight of the fan
- 3. Availability of equipment sizes, options and accessories may vary by region

Inlet: Through front of the intermediate section.

Outlet to the fan: Though upper section, the details of it depend of the fanset. Way of shipping: Till size 6 included, fully assembled, stand up (one pack). Other sizes: In three sections (top+intermediate+lower) to be bolted on site.

Number of normal trucks: Arrangement B: One. Arrangement C: One (until size 24) or two (size 28 and above). Arrangement D: One (until size 28) or two (size 32 and above).



## **AAF** International

Filtration has been at the heart of our business since 1921 and thanks to the high caliber of our products and services, we are trusted by many of the world's leading power and industrial companies. We provide our customers with the expertise, the solutions and the best available filtration technology to increase operational performance. Bringing clean air to life, our products provide the highest levels of indoor air quality, the lowest environmental emissions and the optimum safety conditions for employees and the wider community.

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