Donaldson Torit®

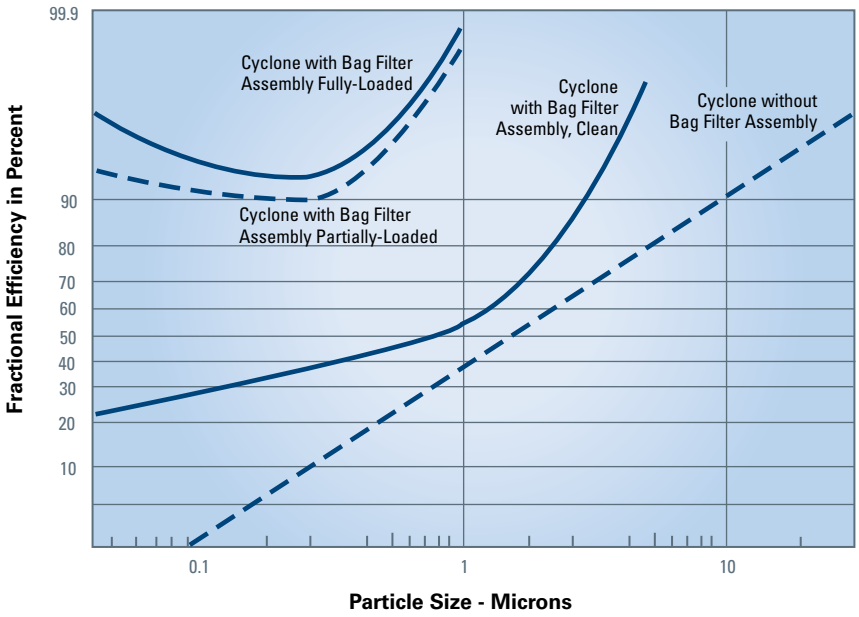
CYCLONE DUST COLLECTORS

MODELS 12, 16, 20, 24, 30, 36, and 44

Mechanical separator using centrifugal force to remove large and high-volume dust from industrial applications.

- An economical solution to a wide range of dust collection problems
- Excellent for high dust load, high temperature, and product recovery applications
- Can be used alone, with optional bag filter assembly, or as a pre-cleaner
- Applications from 300 - 13,000 cfm (510 - 22,082 m^3/h)
- Heavy-duty construction for long life and low maintenance
- Meets most seismic and 90 mph (145 kmph), Exp C wind load ratings
- Removable cone section for easy replacement

Cyclone Dust Collector
with Optional Bag Filter Assembly

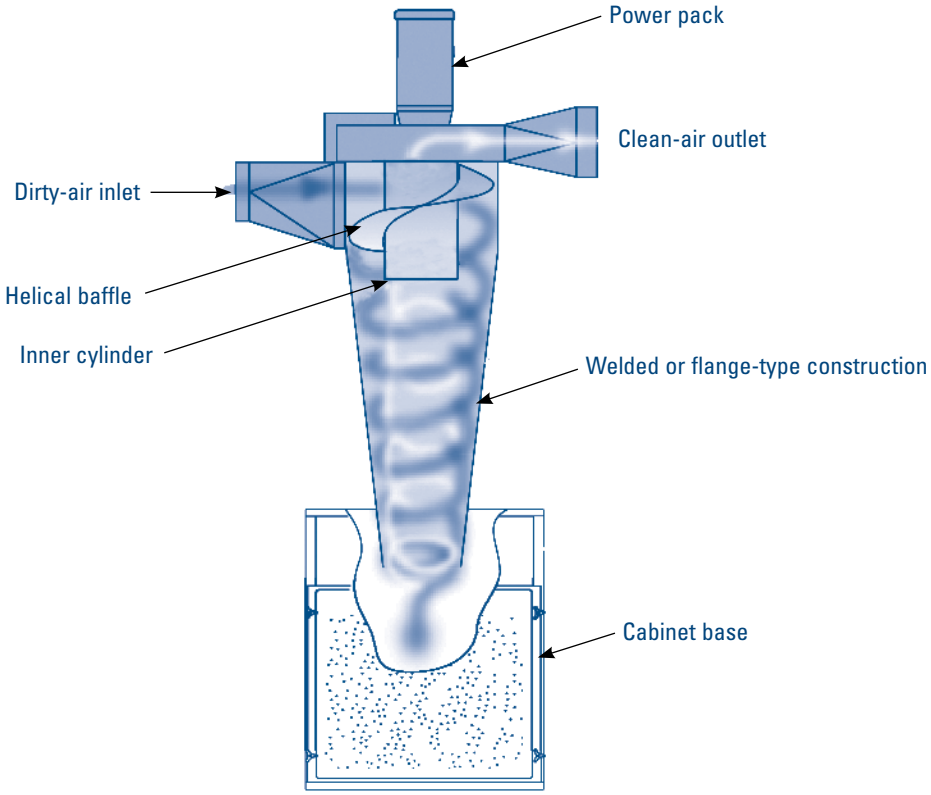


Fractional Efficiency is the ratio of particles collected to particles entering the cyclone.

This chart illustrates the efficiency* of a Cyclone collector with and without an optional filter bag assembly under clean, partially-loaded, and fully-loaded filter bag conditions.

* Actual efficiency may vary depending on the application. Dust concentration, airflow, particle shape, and density affect filtration efficiency.

OPERATIONAL EXPLANATION



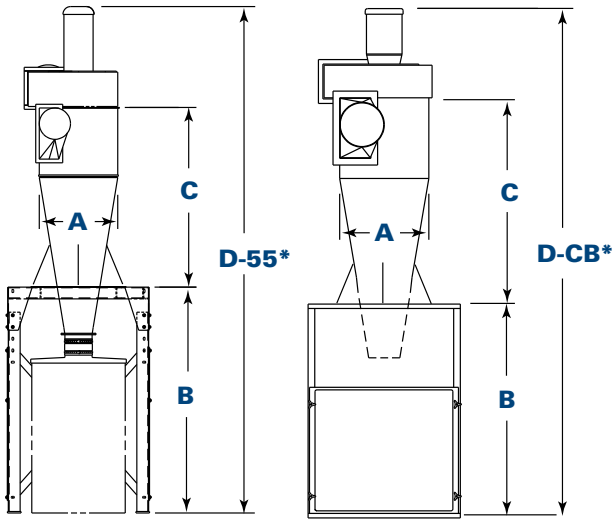
Dust-laden air enters the unit through the air inlet and is diverted by a helical baffle. Centrifugal force moves the heavy dust particles to the interior sidewalls and carries them to the base of the unit. Cleaned air is carried through the inner cylinder and discharges to atmosphere or optional afterfilters.

MULTIPLE RATING TABLE

Model	Nominal Airflow Range*		External Static Pressure ("wg)	Inlet Velocity	
	cfm	m^3/h		fpm	m/min
12	300 - 540	510 - 917	5.6 - 4.1	3580 - 6200	1091.2 - 1889.8
16	860 - 1,200	1,461 - 2,038	7.9 - 4.6	4380 - 6135	1335.0 - 1869.9
20-3	1,250 - 2,000	2,123 - 3,397	7.5 - 3.7	3555 - 5710	1083.6 - 1740.4
20-5	1,500 - 2,500	2,548 - 4,247	11.4 - 5.0	4290 - 7140	1307.6 - 2176.3
24	1,950 - 3,500	3,312 - 5,945	13.4 - 4.4	3580 - 6450	1091.2 - 1966.0
30-10	3,000 - 4,500	5,096 - 7,644	9.9 - 5.0	3820 - 5730	1164.3 -1746.5
30-15	4,000 - 5,600	6,795 - 9,512	11.0 - 4.9	5100 - 7140	1554.5 - 2176.3
36-20	4,300 - 7,000	7,304 - 11,891	11.4 - 4.9	4015 - 6540	1223.8 - 1993.4
36-25	4,500 - 7,500	7,644 - 12,740	14.9 - 6.3	4210 - 7010	1283.2 - 2136.6
36-30	5,000 - 8,000	8,493 - 13,589	16.1 - 7.1	4670 - 7465	1423.4 - 2275.3
44-40	8,000 - 11,500	13,589 - 19,534	15.1 - 5.5	4530 - 6510	1380.7 - 1984.2
44-50	8,000 - 13,000	13,589 - 22,082	18.8 - 7.0	4530 - 7360	1380.7 - 2243.3

* Based on clean bag filters.

DIMENSIONS & SPECIFICATIONS



55-Gallon Drum Base Cabinet Base

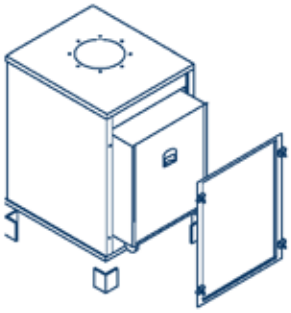
Model	Dimensions									
	A		B		C		D-55*		D-CB*	
	in	mm	in	mm	in	mm	in	mm	in	mm
12	12	304.8	55	1397.0	32	812.8	100	2540.0	78	1981.2
16	16	406.4	55	1397.0	36	914.4	108	2743.2	86	2184.4
20-3	20	508.0	55	1397.0	48	1219.2	121	3073.4	114	2895.6
20-5	20	508.0	55	1397.0	48	1219.2	123	3124.2	116	2946.4
24	24	609.6	67	1701.8	55	1397.0	145	3683.0	126	3200.4
30-10	30	762.0	67	1701.8	72	1828.8	162	4114.8	154	3911.6
30-15	30	762.0	67	1701.8	72	1828.8	162	4114.8	154	3911.6
36-20	36	914.4	67	1701.8	85	2159.0	183	4648.2	—	—
36-25	36	914.4	67	1701.8	85	2159.0	186	4724.4	—	—
36-30	36	914.4	67	1701.8	85	2159.0	186	4724.4	—	—
44-40	44	1117.6	—	—	104	2641.6	—	—	—	—
44-50	44	1117.6	—	—	104	2641.6	—	—	—	—

* Typical. May vary based on motor type/size ordered.

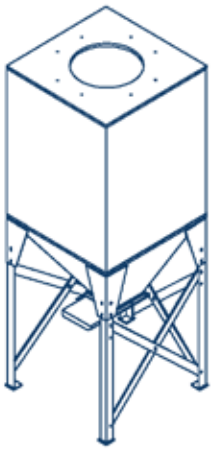
Model	Optional Bag Filter Assembly			Motor (hp)	Air Inlet		Air Outlet		Dust Capacity				Shipping Weight			
	Filter Area		No. of Bag Filters						Dust Drawer		Hopper		Standard		With Optional Bag Filter Assembly	
	ft^2	m^2			in	mm	in	mm	ft^2	m^2	ft^2	m^2	lb	kg	lb	kg
12	15	1.4	1	¾	4	101.6	6	152.4	4.8	0.4	12.0	1.1	325	147.4	350	158.8
16	25	2.3	1	2	6	152.4	8	203.2	4.8	0.4	12.0	1.1	390	176.9	410	186.0
20-3	70	6.5	4	3	8	203.2	10	254.0	8.5	0.8	19.5†	1.8	600	272.2	740	335.7
20-5	70	6.5	4	5	8	203.2	10	254.0	8.5	0.8	19.5†	1.8	640	290.3	740	335.7
24	100	9.3	4	7.5	10	254.0	12	304.8	8.5	0.8	37.5†	3.5	750	340.2	850	385.6
30-10	200	18.6	8	10	12	304.8	14	355.6	16.5	1.5	37.5†	3.5	1175	533.0	1400	635.0
30-15	200	18.6	8	15	12	304.8	14	355.6	16.5	1.5	37.5†	3.5	1210	548.8	1486	674.0
36-20	300	27.9	12	20**	14	355.6	16	406.4	—	—	54.0†	5.0	2000	907.2	2300	1043.3
36-25	300	27.9	12	25	14	355.6	16	406.4	—	—	54.0†	5.0	2145	973.0	2445	1109.0
36-30	300	27.9	12	30**	14	355.6	16	406.4	—	—	54.0†	5.0	2165	982.0	2465	1118.1
44-40	600	55.7	24	40**	18	457.2	20	508.0	—	—	103.0	9.6	3150	1428.8	3550	1610.3
44-50	600	55.7	24	50**	18	457.2	20	508.0	—	—	103.0	9.6	3165	1435.6	3565	1617.1

* Based on clean filters.
** Model 36-20 and 36-30 available with direct- or belt-drive blowers. Model 44 available with belt-drive blower only.
† Up to 103 ft^3 (2.92 m^3) hopper available.

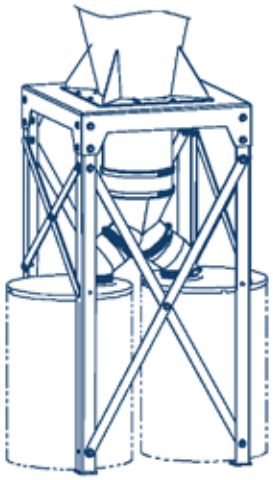
BASE OPTIONS



Cabinet Base



Hopper Base



Two-Drum Style
55-Gallon Drum Base
(optional)

Surge Hopper
(optional)

STANDARD FEATURES & AVAILABLE OPTIONS

STANDARD	OPTIONAL
Inlet assembly	Power pack
55-gallon (208.2-liter) drum base for Models 12 though 36	Explosion-proof motors
TEFC motor with 60 Hz 1 HP and larger are EISA compliant	50 Hz, single phase motors
103 cu. ft. hopper and legs for Model 44	Steel or aluminum fan wheels
208/230/460/60/3 voltages	Hopper base
10-year warranty	Two 55-gallon (208.2-liter) drum base for Models 20, 24, and 30
	Cabinet base for Models 12, 16, 20, 24, and 30
	Surge hopper
	Silencer
	Exhaust accessories
	Attenuator
	Bag filter options
	Bag filter enclosure
	Explosion vent

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