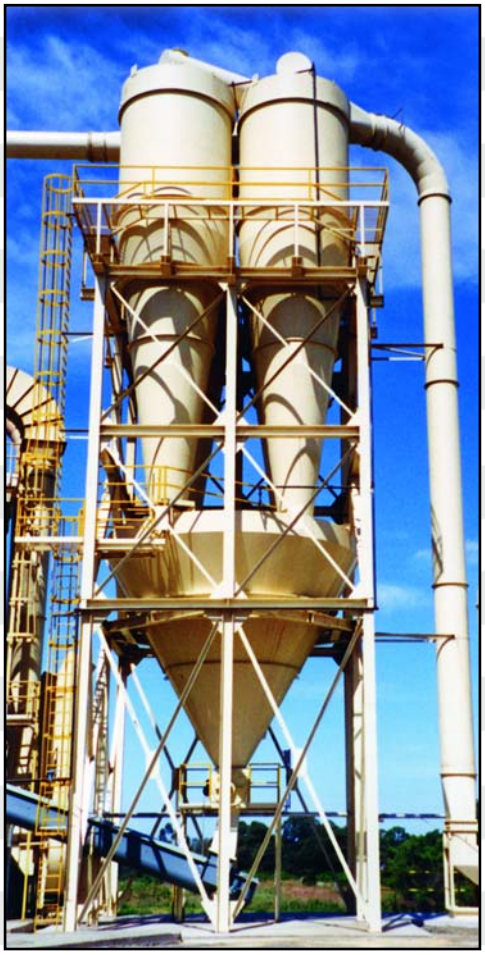
FISHER-KLOSTERMAN®

A CECO Environmental Company

Guaranteed Gas Cleaning Technologies



XQ Series High Efficiency Cyclone Dust Collectors:

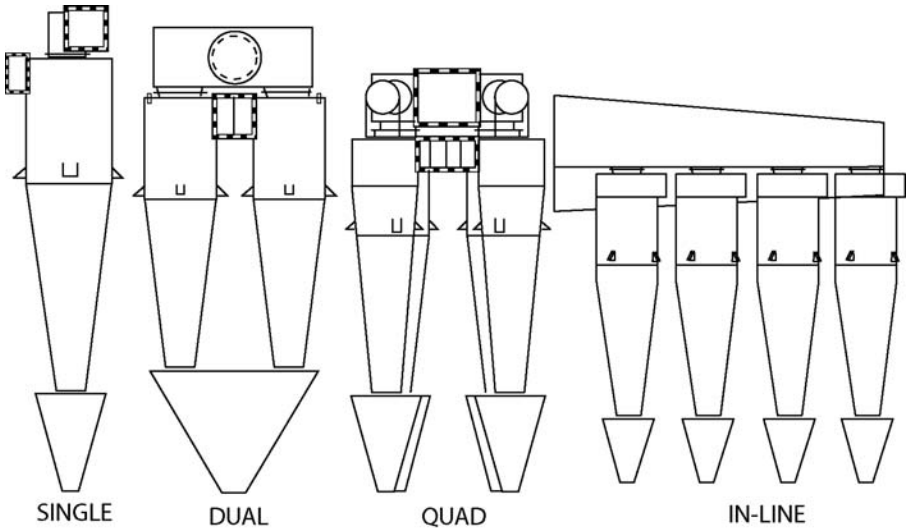
Model XQ030
Model XQ120
Model XQ170
Model XQ240
Model XQ340
Model XQ405
Model XQ465

A family of companies creating better working environments for you.

CECO Environmental

FISHER-KLOSTERMAN®

A CECO Environmental Company



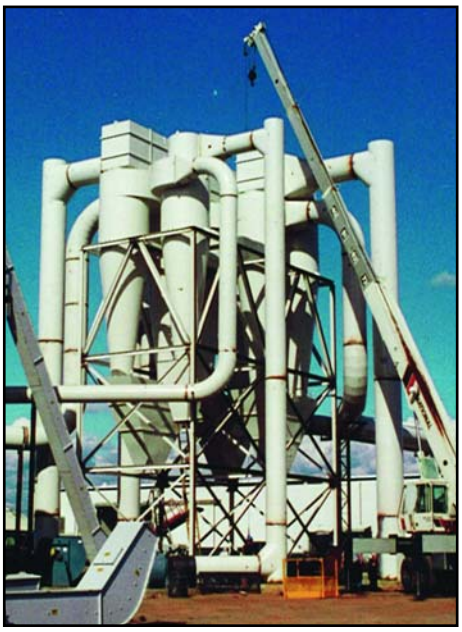
XQ Series Cyclones

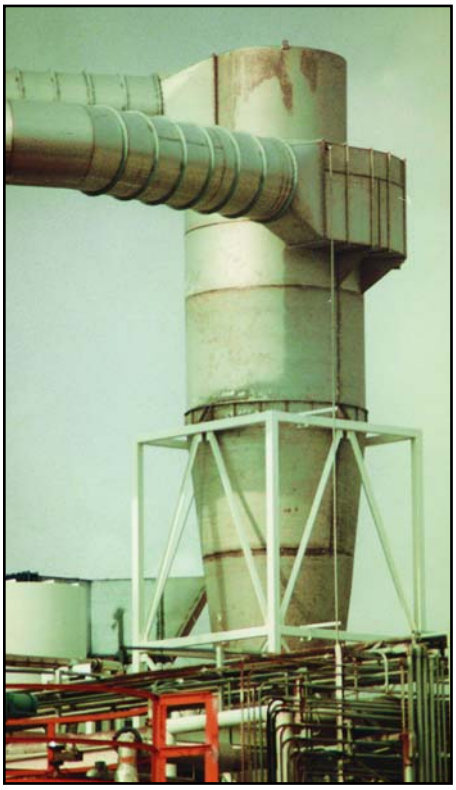
XQ Series Cyclones are available in standard designs or with the following custom features:

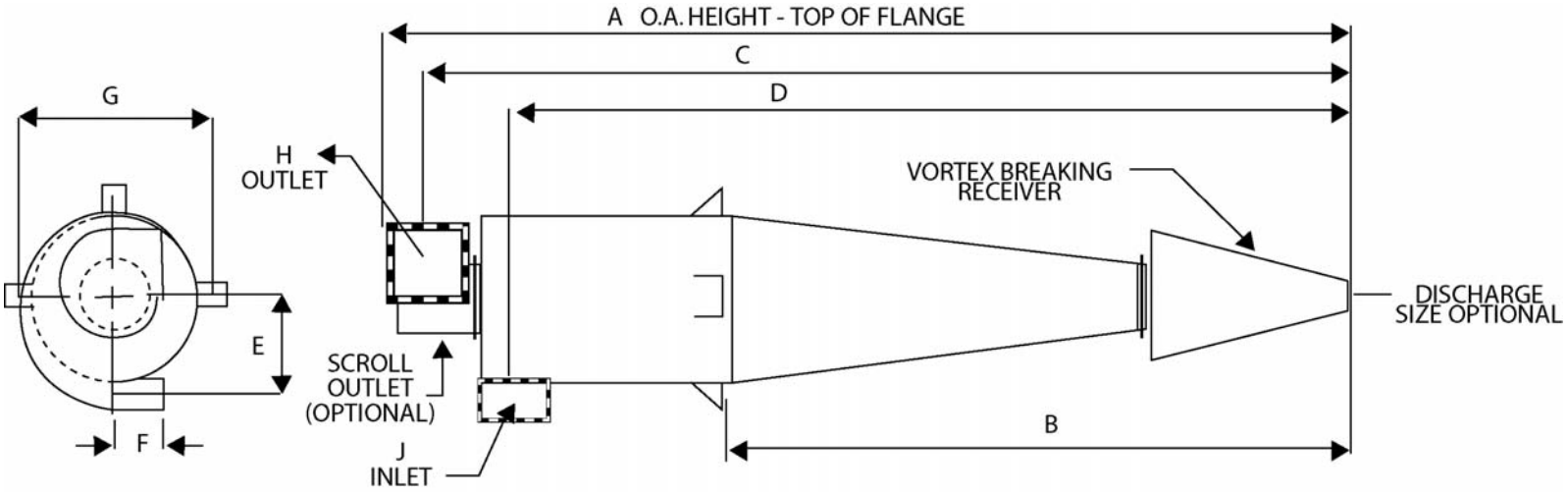
- Carbon, stainless or alloy steel construction
- ASME code design and construction for pressure vessels
- High temperature construction
- Interior linings for abrasion resistance including vulcanized rubber, refractory, and ceramics
- Non-stick coatings
- Access doors
- Break-apart construction
- Interior finishes conforming to 3A dairy, food grade, or pharmaceutical standards
- Clean-in-place systems
- Jacketing for heat transfer requirements including dimple plate, coils and half-pipe
- Explosion containment or venting per NFPA guidelines
- Support steel, insulation, airlocks, ductwork, and other ancillary equipment

At Fisher-Klosterman, we take cyclone design very seriously. Our vast experience and scientific knowledge of cyclone design allows us to achieve extremely high collection efficiencies that in many applications can eliminate the necessity of final filtration devices. Our sophisticated computer modeling allows us to offer guaranteed performance when provided with complete operating information.

Fisher-Klosterman offers seven basic models of cyclone dust collectors - the XQ Series. These cyclones provide various levels of efficiency to meet your specific collection needs and are available in sizes from miniature collectors to units so large they must be shipped in sections. Dual, quad and other multiple arrangements are also available to solve height restriction issues or increase dust collection efficiency. Common inlet manifolds, outlet manifolds, and hoppers can be supplied to simplify connecting ductwork. Whether you want to remove relatively large particles from the air, eliminate fine particulate from plant emissions, or recover highly valuable product from process gas streams, there's an XQ Cyclone that's right for you.





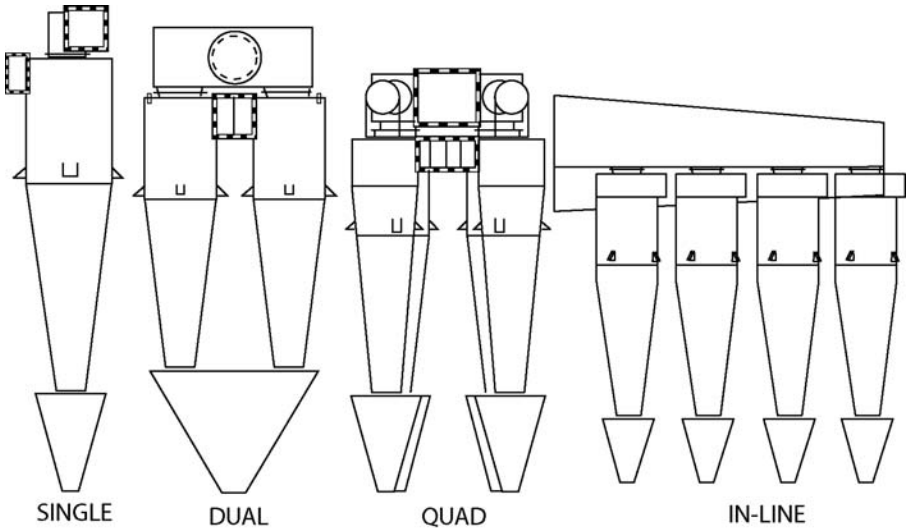


Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	99	135	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	84 1/8	55	81 ¼	74 ½	9	7	22	3 ½	3 x 1 ½
5	263	360	99.5	99.7	99.9	99.9	99.9	99.9	99.9	99.9	131 ¾	84 5/8	127 3/8	119 1/8	14 ¾	9	32 5/8	5 ½	5 x 2 ½
7	509	700	99.2	99.5	99.9	99.9	99.9	99.9	99.9	99.9	188	117 3/8	182 7/8	166 7/8	20 5/8	11	43 3/8	8	7 x 3 ½
9	825	1100	99.0	99.3	99.9	99.9	99.9	99.9	99.9	99.9	237 ½	153	232 ¾	217 ½	26 ½	14	54 3/8	9 ½	9 x 4 ½
11	1222	1740	98.3	99.1	99.9	99.9	99.9	99.9	99.9	99.9	293 ¼	188	284 ¾	267 ½	32 3/8	18	66 ½	12 ½	11 x 5 ½
13	1700	2335	97.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	341 ½	218 3/8	332 3/8	312 7/8	38 3/16	23	77 3/8	14	13 x 6 ½
15	2290	3160	97.3	98.5	99.8	99.9	99.9	99.9	99.9	99.9	389 11/16	251	379 9/16	358 1/16	44	28	88	16	15 x 7 ½
17	2875	3970	96.7	98.2	99.8	99.9	99.9	99.9	99.9	99.9	443 ¼	283 5/8	431 7/8	408 1/8	49 7/8	34	98 5/8	18	17 x 8 ½
19	3680	5020	96.1	97.8	99.7	99.8	99.9	99.9	99.9	99.9	494 ½	316 3/8	481 7/8	455 7/8	55 5/8	40	109 3/8	21	19 x 9 ½
21	4400	6050	95.6	97.4	99.6	99.8	99.9	99.9	99.9	99.9	545 1/8	349	531 ½	503 ½	66 ¾	48	120	23	21 x 10 ½
23	This size and above exceeds transport limit																		

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

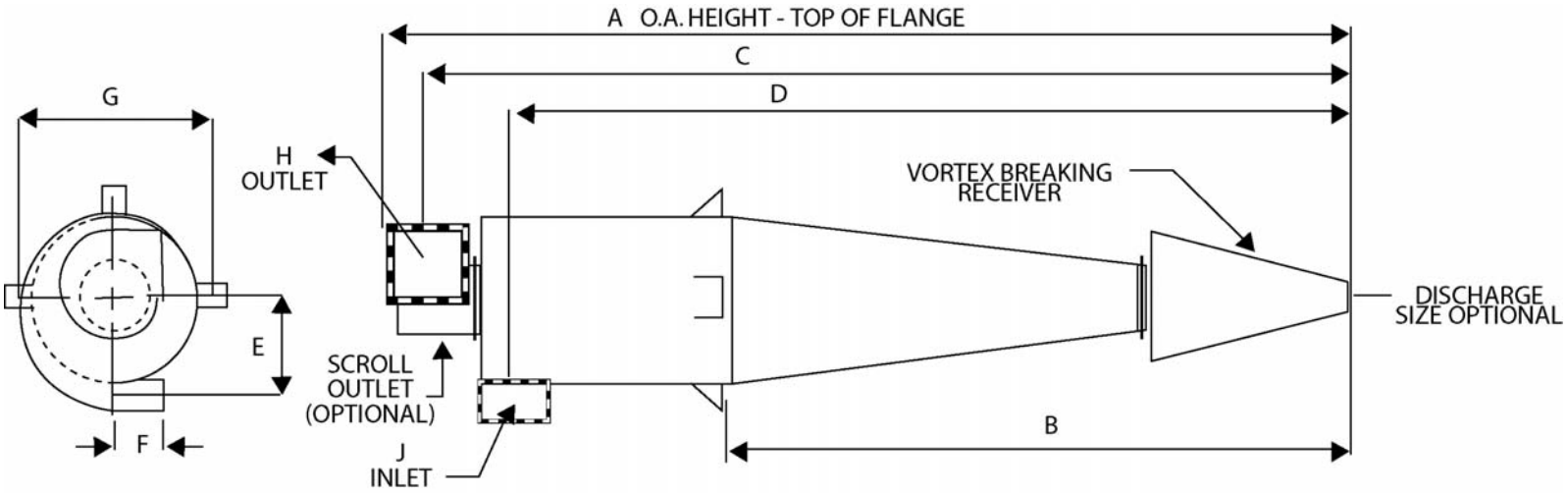
FISHER-KLOSTERMAN®

A CECO Environmental Company



Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	98	135	98	98.8	99.7	99.9	99.9	99.9	99.9	99.9	52 ½	32 1/16	49 3/8	39 3/8	5 1/8	6	10 ¾	3 ½	3 x 1 ½
5	265	365	96.5	97.8	99.5	99.7	99.9	99.9	99.9	99.9	81 5/8	51 3/8	77 11/16	65 11/16	8 5/16	7	15 ¾	5 ½	5 x2 ½
7	513	710	95.0	96.9	99.1	99.5	99.9	99.9	99.9	99.9	110 3/8	70 ¾	106 15/16	92 1/16	11 7/16	9	21 ½	8	7 x3 ½
9	848	1162	93.7	95.8	98.8	99.3	99.9	99.9	99.9	99.9	145 13/16	93 1/16	138 7/8	121 3/8	14 5/8	10	27 ½	9 ½	9 x4 ½
11	1283	1762	92.1	94.7	98.4	99.0	99.9	99.9	99.9	99.9	176 1/8	112 3/8	167 11/16	147 11/16	17 13/16	12	32 ½	12 ½	11 x5 ½
13	1775	2444	90.8	93.8	98.0	98.8	99.9	99.9	99.9	99.9	203 1/8	131 ¾	195 13/16	174 1/16	20 15/16	13	38	14	13 x6 ½
15	2350	3236	89.6	92.8	97.6	98.6	99.9	99.9	99.9	99.9	232 7/16	151 1/16	224 1/8	200 3/8	24 1/8	14	44	16	15 x7 ½
17	3010	4145	88.4	91.9	97.3	98.3	99.9	99.9	99.9	99.9	264 3/8	170 3/8	252 11/16	226 11/16	27 15/16	15	49	18 ½	17 x8 ½
19	3752	5170	86.2	91.0	96.9	98.0	99.9	99.9	99.9	99.9	292 9/16	189 ¾	280 13/16	253 1/16	30 7/16	16	54	20	19 x9 ½
21	4575	6307	82.7	90.0	96.5	97.8	99.9	99.9	99.9	99.9	326 3/8	212 1/16	312 5/8	282 3/8	33 5/8	17	62	23	21 x10 ½
23	5480	7550	79.0	89.4	96.2	97.6	99.8	99.9	99.9	99.9	359 11/16	231 3/8	340 15/16	308 11/16	36 13/16	18	67	25	23 x 11 ½
25	6470	8905	75.3	88.6	95.8	97.3	99.8	99.9	99.9	99.9	385 5/16	250 ¾	369 9/16	335 1/16	39 15/16	18	72	27 ½	25 x 12 ½
27	7535	10370	71.6	87.5	95.4	97.0	99.8	99.9	99.9	99.9	404 7/8	270 1/8	397 ¼	361 5/8	43	19 ½	77 ½	30	27 x 13 ½
29	8675	11950	67.8	85.1	95.0	96.8	99.7	99.9	99.9	99.9	447 ¼	289 5/8	428 ¾	388 1/8	46 ¼	20 ½	83	32	29 x 14 ½
31	9910	13640	64.2	82.6	94.7	96.6	99.7	99.9	99.9	99.9	473 ¼	308 5/8	453 ¾	414 1/8	49 ¼	21 ½	89	34	31 x 15 ½
33	11215	15450	60.6	80.1	94.4	96.3	99.7	99.9	99.9	99.9	505 ¾	331 1/8	485 ¼	443 5/8	52 ½	22 ½	95	36	33 x 16 ½
35	12615	17370	57.2	77.5	94.0	96.0	99.7	99.9	99.9	99.9	534 ¼	350 5/8	513 ¾	470 1/8	55 ¾	23 ½	100 ½	38	35 x 17 ½
37	14085	19400	53.9	74.9	93.7	95.8	99.6	99.9	99.9	99.9	565 ¼	369 5/8	542 ¼	495 5/8	58 ¾	24 ½	105 ½	41	37 x 18 ½
39	15640	21535	50.7	72.2	93.3	95.6	99.6	99.9	99.9	99.9	594 ¾	389 1/8	570 ¾	522 5/8	61 7/8	25	111	43	39 x 19 ½
41	17290	23790	47.8	69.6	93.0	95.3	99.6	99.9	99.9	99.9	624	408 5/8	598 ½	549 1/8	65 3/8	25 ½	116 ½	45	41 x 20 ½
43	19000	26160	44.9	67.0	92.6	95.0	99.5	99.9	99.9	99.9	652 ¼	427 5/8	627 ¼	575 1/8	68 1/8	26 ½	121 ½	47	43 x 21 ½
45	20800	28630	42.2	64.5	92.3	94.8	99.5	99.9	99.9	99.9	683 ¼	447 1/8	651 ¾	601 5/8	71 1/8	27	128	50	45 x 22 ½
47	22680	31215	39.7	62.0	92.0	94.6	99.5	99.9	99.9	99.9	711 ¾	466 5/8	679 ¾	628 1/8	75 1/8	27 ½	137	51	47 x 23 ½
49	24640	33915	37.2	59.5	91.7	94.4	99.4	99.9	99.9	99.9	720 ¾	485 5/8	712 ¼	654 1/8	77 7/8	28	139 ½	54	49 x 24 ½
51	26680	36730	35.0	57.1	91.3	94.1	99.4	99.9	99.9	99.9	772 ¼	505 1/8	735 ¾	680 5/8	78 1/8	28 ½	145	55	51 x 25 ½
53	This size and above exceeds transport limit																	57	

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

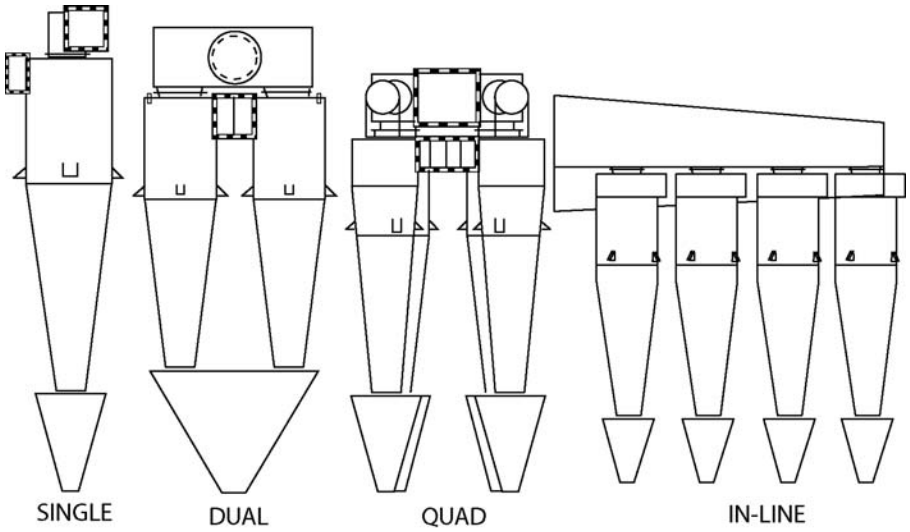


Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	97	130	96.2	97.6	99.4	99.6	99.9	99.9	99.9	99.9	43 7/8	26 1/4	41 1/8	34 3/8	4 1/4	6	8 3/4	3 1/2	3 x 1 1/2
5	264	357	93.7	95.9	98.7	99.3	99.9	99.9	99.9	99.9	71 1/8	43 1/2	67 1/4	57 1/4	7	8	14 3/4	5 1/2	5 x 2 1/2
7	514	696	91.5	94.3	98.1	98.9	99.9	99.9	99.9	99.9	93 1/8	60	88	77	9 3/4	9	18 3/4	8	7 x 3 1/2
9	848	1145	89.4	92.7	97.5	89.5	99.9	99.9	99.9	99.9	120 5/8	77	112 7/8	99 1/2	12 1/2	10	23 1/2	9 1/2	9 x 4 1/2
11	1296	1751	87.0	90.9	96.7	97.9	99.9	99.9	99.9	99.9	147 5/8	95	139 3/4	123 1/2	15 1/4	11	28 1/2	11 1/2	11 x 5 1/2
13	1800	2432	83.6	89.5	96.1	97.5	99.8	99.9	99.9	99.9	173 5/8	112	164 1/2	146	17 7/8	12	32 1/2	14	13 x 6 1/2
15	2350	3225	79.5	88.2	95.4	97.1	99.8	99.9	99.9	99.9	199 1/8	129	189	168 1/2	20 5/8	13	37	16	15 x 7 1/2
17	3050	4130	75.3	86.9	94.8	96.7	99.7	99.9	99.9	99.9	222 5/8	143	211 1/4	188 1/2	23 3/8	14	41	18 1/2	17 x 8 1/2
19	3800	5145	71.2	84.4	94.2	96.2	99.7	99.8	99.9	99.9	248 1/8	160	236	211 1/2	26 1/8	15	46	20	19 x 9 1/2
21	4362	6274	67.3	81.6	93.6	95.8	99.6	99.8	99.9	99.9	275 7/8	178	262 1/4	235 1/2	28 7/8	16	51	23	21 x 10 1/2
23	5544	7514	63.4	78.7	93	95.4	99.5	99.8	99.9	99.9	301 1/8	195	286 1/2	257 1/2	31 7/8	16	55	25	23 x 11 1/2
25	6542	8864	59.9	75.7	92.5	95	99.5	99.7	99.9	99.9	327 1/8	212	311 1/2	280 1/2	34 5/8	17	62	27	25 x 12 1/2
27	7620	10330	56.4	72.9	91.9	94.6	99.4	99.7	99.9	99.9	354 1/8	229 1/2	337	303 1/2	37	17 1/2	67	30	27 x 13 1/2
29	8780	11904	53.2	70.1	91.4	94.2	99.4	99.6	99.9	99.9	376 5/8	243 1/2	358 1/2	323 1/2	40 1/4	18 1/2	71	32	29 x 14 1/2
31	10020	13591	50.2	67.3	90.8	93.8	99.3	99.6	99.9	99.9	402 5/8	243 1/2	383 1/2	346 1/2	43 1/4	19	75	34	31 x 15 1/2
33	11350	15385	47.3	64.7	90.3	93.4	99.2	99.6	99.8	99.9	427 5/8	277 1/2	408	369	45 3/4	19 1/2	80 1/2	35	33 x 16 1/2
35	12752	17300	44.6	62.1	89.8	93	99.2	99.5	99.8	99.9	454 5/8	295	433 1/2	392	48	20	85	38	35 x 17 1/2
37	14244	19320	42.1	59.6	89.3	92.6	99.1	99.5	99.8	99.9	481 1/8	312 1/2	459	415 1/2	51	20 1/2	89 1/2	40	37 x 18 1/2
39	15812	21450	39.8	57.2	88.8	92.2	99	99.5	99.8	99.9	504 3/4	326 1/2	481	435	54	21	94 1/2	43	39 x 19 1/2
41	17472	23700	37.6	54.9	88.3	91.9	98.9	99.4	99.8	99.9	528 5/8	343 1/2	504 1/2	457	56	21 1/2	99	44	41 x 20 1/2
43	19200	26050	35.5	52.7	87.9	91.5	98.9	99.4	99.8	99.9	555 1/4	360 1/2	530	480 1/2	59	22	103 1/2	46	43 x 21 1/2
45	21016	28525	33.6	50.5	87.4	91.1	98.8	99.3	99.7	99.9	582 5/8	378	556	504	62	22 1/2	108	49	45 x 22 1/2
47	22916	31100	31.7	48.5	86.9	90.8	98.8	99.3	99.7	99.9	604 7/8	392 1/2	577 3/4	524	65	23	112 1/2	50 1/2	47 x 23 1/2
49	24900	33790	30	46.5	86.3	90.4	98.7	99.2	99.7	99.8	630	409 1/2	602	546 1/2	67	23 1/2	117 1/2	52	49 x 24 1/2
51	26980	36600	28.5	44.7	85.3	90	98.6	99.2	99.7	99.8	657 1/2	426 1/2	627 1/2	569 1/2	70	24	121 1/2	55	51 x 25 1/2
53	29120	39500	28	42.9	84.2	89.7	98.6	99.2	99.7	99.8	677 1/2	443 1/2	647	592	73	24 1/2	127	57	53 x 26 1/2
55	31360	42535	25.6	41.2	83.2	89.4	98.5	99.1	99.6	99.8	704 3/4	461	672 1/2	615	75	25	132	60	55 x 27 1/2
57	33660	45665	23.3	39.6	82.1	89	98.4	99	99.6	99.8	733 1/4	475 1/2	700	635 1/2	78	26	136 1/2	61	57 x 28 1/2
59	This size and above exceeds transport limit																		

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

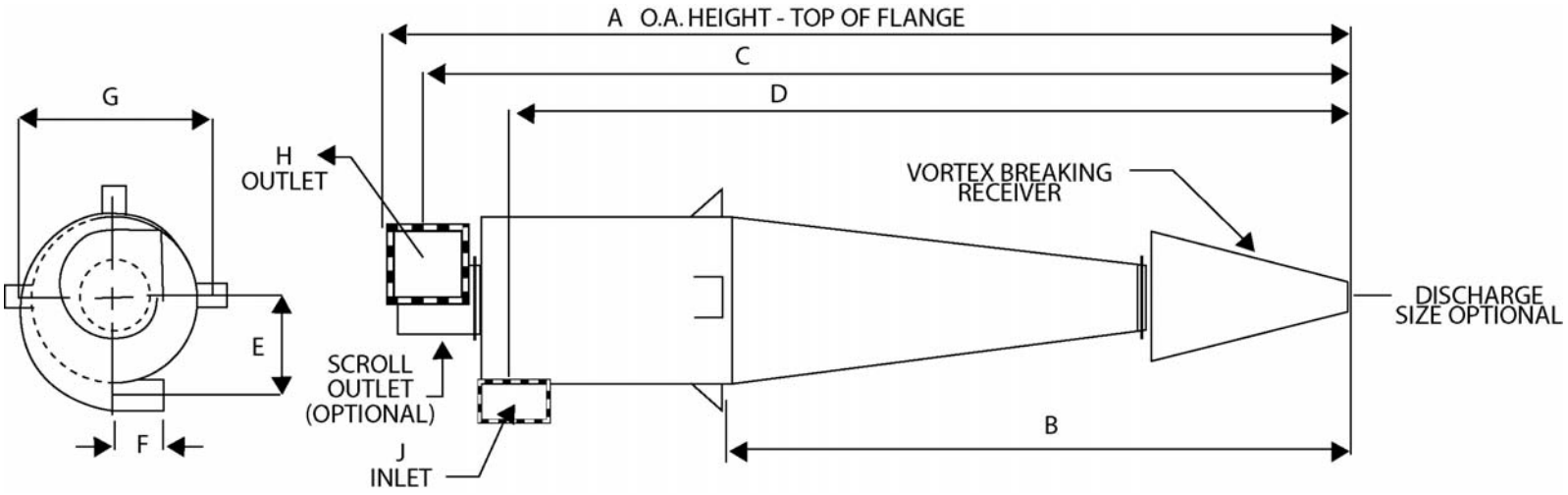
FISHER-KLOSTERMAN®

A CECO Environmental Company



Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	95	130	92.6	95.1	98.4	99	99.9	99.9	99.9	99.9	40 ¼	23 ¾	37	30 ¼	3 11/16	6	7 ¾	3 ½	3 x 1 ½
5	260	357	88.6	92.1	97.2	98.3	99.9	99.9	99.9	99.9	60 ¾	36	56	47 ¼	8 1/16	7	11 ¾	5 ½	5 x2 ½
7	505	694	85.1	89.4	96	97.5	99.8	99.9	99.9	99.9	80 ¼	48 ½	74 ¾	64 ¼	8 ½	9	15 ¾	7	7 x3 ½
9	831	1124	79.7	87	94.8	96.7	99.7	99.8	99.9	99.9	105 ¾	66 ½	98 ¾	84 ½	10 7/8	10	20 ½	9 ½	9 x4 ½
11	1267	1748	73.4	83.7	93.3	95.7	99.6	99.8	99.9	99.9	125 3/8	79	117 ¾	101 ½	13 ¼	11	24 ½	11 ½	11 x5 ½
13	1764	2425	68.7	80	92.3	94.9	99.5	99.7	99.9	99.9	149	94	140	121 ½	15 7/8	12	27 ½	14	13 x6 ½
15	2336	3215	64.3	76.4	91.2	94.1	99.3	99.6	99.9	99.9	169 ½	107	159 ½	139	18 1/8	12	31 ½	16	15 x7 ½
17	2990	4116	60.2	72.9	90.2	93.4	99.2	99.6	99.8	99.9	192	122	181	158 ½	20 3/8	13	35 ½	18	17 x8 ½
19	3726	5128	56.5	69.6	89.3	92.7	99.1	99.5	99.8	99.9	213	135	201	176 ½	22 7/8	14	39 ½	20	19 x9 ½
21	4542	6250	53.1	66.5	88.3	91.9	99	99.4	99.8	99.9	235	150	222	195 ½	25 1/8	14	44	22	21 x10 ½
23	5438	7484	50	63.5	87.4	91.3	98.8	99.3	99.7	99.9	255	162	241	212 ½	27 5/8	15	47	24	23 x 11 ½
25	6415	8830	47.0	60.7	86.6	90.6	98.7	99.3	99.7	99.8	280	178	264 ½	233 ½	29 5/8	16	51	27	25 x 12 ½
27	7470	10285	44.4	58.0	85.7	89.9	98.6	99.2	99.6	99.8	302	193 ½	286	253 ½	32 ½	16	55	28	27 x 13 ½
29	8610	11850	42	55.6	84.8	89.3	98.4	99.1	99.6	99.8	322 ½	205 ½	305	270	35	16 ½	60	31	29 x 14 ½
31	9830	13530	39.7	53.2	83.4	88.7	98.3	99	99.6	99.8	345 ½	221	327	290	37 1/8	17 ½	64 ½	33	31 x 15 ½
33	11130	15320	37.6	51	82	88	98.2	98.9	99.6	99.8	365	233 ½	345 ¾	307	39 ½	18	68	35	33 x 16 ½
35	12505	17220	35.7	49.8	80.7	87.5	98	98.8	99.5	99.7	384	249	368 ½	327 ½	42	18 ½	72	37	35 x 17 ½
37	13965	19230	33.8	46.9	79.3	86.9	97.9	98.8	99.5	99.7	409	261 ½	387 ½	344 ½	44 ½	19	76	39	37 x 18 ½
39	15515	21350	32.2	45	78	86.3	97.7	98.7	99.4	99.7	433	277	410	364 ½	36 ¾	20	79	42	39 x 19 ½
41	17140	23590	30.6	43.3	76.7	85.8	97.6	98.6	99.4	99.7	453	289 ½	429 ¼	382	49	20	82 ½	43 ½	41 x 20 ½
43	18840	25930	29.2	41.7	75.4	85.2	97.5	98.5	99.3	99.6	475	304 ½	450 ½	401 ½	51 ½	21	87	45	43 x 21 ½
45	20610	28390	27.8	40	74	84.3	97.3	98.4	99.3	99.6	495	317	469 ½	418 ½	54	22 ½	91	48	45 x 22 ½
47	22490	30950	26.5	38.5	72.9	83.4	97.2	98.3	99.3	99.6	519 ½	332 ½	492 ½	439	56 ¼	23	94 ½	50	47 x 23 ½
49	24430	33630	25.3	37.1	71.6	82.4	97.1	98.2	99.2	99.6	538 ½	345	511	456	58 ½	23 ½	98	51	49 x 24 ½
51	26465	36410	24.2	35.7	70.4	81.5	96.9	98.1	99.2	99.5	562 ½	360 ½	533 ½	476	61 ½	24	102 ½	54	51 x 25 ½
53	28560	39320	23.1	34.4	69.2	80.6	96.8	98	99.1	99.5	582	373	552 ½	493 ½	63 ½	24 ½	107	55	53 x 26 ½
55	30740	42330	22.2	33.2	66.9	79.6	96.7	98	99.1	99.5	605	388 ½	574	513 ½	66	25	111	58	55 x 27 ½
57	33000	45450	21.2	32	66.9	78.7	96.5	97.9	99	99.5	624	400 ½	592	530	68 3/8	25 ½	114 ½	60	57 x 28 ½
59	35360	48680	20.4	30.9	65.8	77.8	96.4	97.8	99	99.4	647	416	614	550 ½	70 ½	26	118	62	59 x 29 ½

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

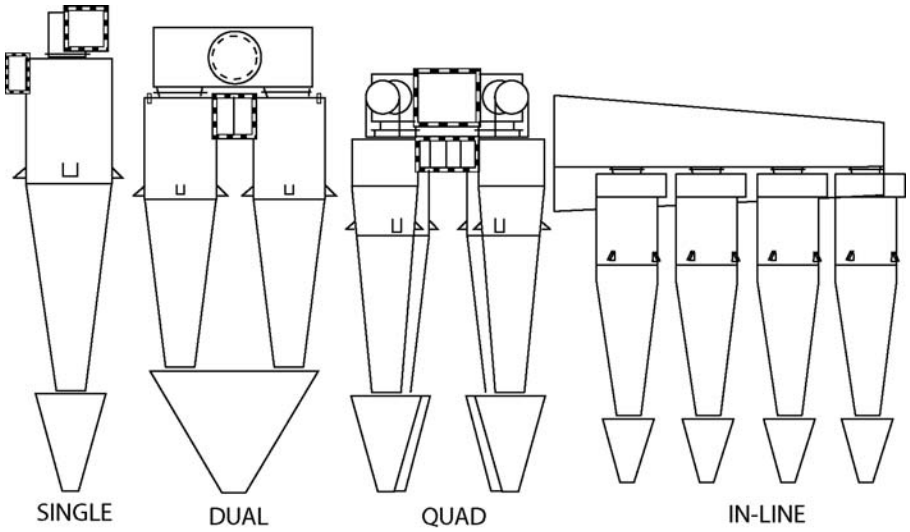


Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	95	130	83.7	88.6	95.5	97.2	99.7	99.9	99.9	99.9	35 7/8	21 3/8	32 5/8	26 ½	3 ¼	6	7 ¾	2 ½	3 x 1 ½
5	260	357	75.4	83	92.7	95.3	99.5	99.7	99.9	99.9	50 1/8	29 ¼	46 3/8	38 1/8	5 5/16	7	10 ¾	4 ½	5 x2 ½
7	505	696	68.2	77.3	90	93.4	99.2	99.6	99.8	99.9	67 ¼	40	62 ¾	52 ¾	7 7/16	8	14 ¾	6	7 x3 ½
9	832	1145	62.4	72	87.8	91.7	98.9	99.4	99.8	99.9	88 ½	54	82 ½	70 ½	9 ½	9	16 ¾	8	9 x4 ½
11	1270	1751	56.6	66.8	85.2	89.7	98.5	99.2	99.7	99.8	107 ½	67 ½	101	85	11 3/8	10	20 ½	9	11 x5 ½
13	1766	2432	52.5	62.8	83.3	88.2	98.2	99	99.6	99.8	124 ½	79	117 ¼	100 ½	13 5/8	11	23 ½	10 ½	13 x6 ½
15	2342	3225	48.9	59.3	81.1	86.7	97.9	98.8	99.5	99.7	144	92	135 ¾	117	15 ¾	12	27 ½	12 ½	15 x7 ½
17	3000	4130	45.8	56.1	78.9	85.4	97.6	98.6	99.4	99.7	161 ½	103	152 ½	132	17 7/8	13	30 ½	14	17 x8 ½
19	3737	5145	42.9	53.3	76.8	84	97.2	98.4	99.3	99.6	179	114	169	146 ½	19 7/8	13	33 ½	16	19 x9 ½
21	4556	6274	40.4	50.6	74.8	82.8	96.9	98.1	99.2	99.6	197	125	186	161 ½	22 1/8	14	37	18	21 x10 ½
23	5458	7514	38.2	48.3	73	81.3	96.5	97.9	99	99.5	217 ½	139	205 ¾	179 ½	24 1/8	14	40	19 ½	23 x 11 ½
25	6440	8864	36.1	46.1	71.2	79.8	96.2	97.7	98.9	99.4	234	150	221 ½	193 ½	26 1/8	15	44	21	25 x 12 ½
27	7500	10330	34.3	44	69.4	78.4	95.9	97.5	98.8	99.4	255 ½	164	242	212	29 3/8	16	49	22	27 x 13 ½
29	8644	11904	32.6	42.2	67.8	76.9	95.6	97.3	98.7	99.3	272 ½	175 ½	258 ½	227	29 3/8	16	50 ½	24	29 x 14 ½
31	9870	13591	31.1	40.5	66.3	75.6	95.2	97	98.6	99.2	289 ½	186	274 ½	241	32 ½	16 ½	53	26	31 x 15 ½
33	11175	15385	29.6	38.9	64.8	74.3	94.9	96.8	98.5	99.1	306 ¾	197	291	255 ½	34 11/16	17	56	27 ½	33 x 16 ½
35	12560	17300	28.3	37.4	63.3	73	94.6	96.6	98.4	99	323	211	306 ½	269 ½	34 ¼	17 ½	60	29	35 x 17 ½
37	14000	19320	27	36	61.9	71.8	94.3	96.4	98.2	99	345	222	327 ½	288 ½	36 1/8	18	64	31	37 x 18 ½
39	15580	21450	26	34.7	60.7	70.6	94	96.2	98.1	98.9	362 ½	233	344	303	38 1/8	18	67	33	39 x 19 ½
41	17210	23700	24.9	33.5	59.4	69.4	93.7	96	98	98.9	382 ½	246 ½	363 ¼	320 ½	43 ¼	18 ½	70	34	41 x 20 ½
43	18930	26050	24	32.3	58.2	68.3	93.4	95.7	97.9	98.8	399 ½	257	379 ½	335	45 ¼	19	73 ½	35	43 x 21 ½
45	20710	28525	23	31.3	57	67.2	93	95.5	97.8	98.7	417	268	396	349 ½	47 ¼	19	76 ½	37	45 x 22 ½
47	22600	31100	22.2	30.2	56	66.2	92.8	95.2	97.6	98.6	433 ½	279	412	364	49 ¼	19 ½	79 ½	39	47 x 23 ½
49	24550	33790	21.4	29.3	54.9	65.2	92.4	95.1	97.5	98.6	454 ½	293	432	382	51 ¼	20	83	41	49 x 24 ½
51	26590	36600	20.6	28.4	53.8	64.2	92.2	94.9	97.4	98.5	473	304	449 ½	397 ½	53 ¼	20 ½	86 ½	43	51 x 25 ½
53	28700	39500	19.9	27.5	52.8	63.2	91.9	94.7	97.3	98.4	489	315	465	411 ½	55 ½	21	90	44	53 x 26 ½
55	30900	42535	19.2	26.7	51.9	62.3	91.6	94.5	97.2	98.3	508	326	481 ½	426	57 ¾	21	93 ½	46	55 x 27 ½
57	33190	45665	18.6	25.9	50.9	61.4	91.3	94.3	97	98.2	528 ¾	340	501 ½	444	59 ¾	21 ½	96 ½	47	57 x 28 ½
59	35500	48920	18	25.1	50	60.5	91	94	96.9	98.1	546	351	518	459	61 ¾	22	99 ½	49	59 x 29 ½

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

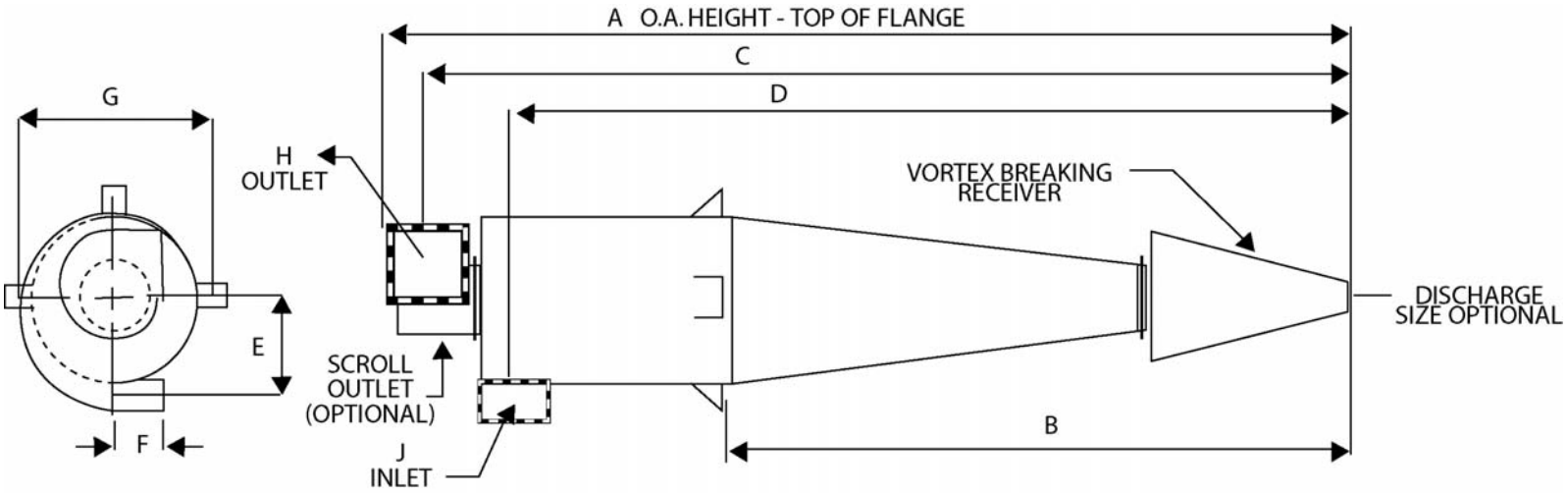
FISHER-KLOSTERMAN®

A CECO Environmental Company



Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	94	129	76.1	82.7	92.5	95.2	99.5	99.8	99.9	99.9	33 ½	20 3/8	31 1/8	24 7/8	3 1/16	5	7 ¾	2 ½	3 x 1 ½
5	257	355	67	75.2	88.4	92.2	99	99.5	99.8	99.9	47 ¼	27 ¾	43 7/8	35 5/8	5	6	10 ¾	4 ½	5 x2 ½
7	502	691	60.2	68.9	84.9	89.5	98.5	99.2	99.7	99.8	63 3/8	38	59 ¼	49 ¼	6 5/16	7	12 ¾	6	7 x3 ½
9	827	1139	54.8	63.8	81.8	87.1	98	98.8	99.5	99.7	79 5/8	48	74 ½	62 ½	8 7/8	9	15 ¾	8	9 x4 ½
11	1264	1740	49.8	58.9	78.2	84.4	97.3	98.4	99.3	99.6	98 5/8	61	91 ¾	76 ½	10 7/8	9	18 ¾	9 ½	11 x5 ½
13	1755	2417	46.2	55.3	75.5	82.4	96.8	98.1	99.1	99.5	118 2/8	74	110 ¼	93	12 ¾	10	21 ½	11 ½	13 x6 ½
15	2329	3205	43.1	52.1	73	80.4	96.2	97.7	98.9	99.4	135 1/8	84	126 ¼	106	14 ¾	12	24 ½	13 ½	15 x7 ½
17	2982	4105	40.4	49.3	70.7	78.4	95.7	97.4	98.8	99.3	152 3/8	95	142 ½	120 ½	16 ¾	13	28 ½	15	17 x8 ½
19	3716	5116	38	46.8	68.5	76.5	95.1	97	98.6	99.2	167 5/8	105	157 ½	134	18 5/8	13	31 ½	17	19 x9 ½
21	4530	6328	35.9	44.5	66.6	74.8	94.6	96.7	98.4	99.1	187 5/8	118	175 ¾	150	20 3/8	14	33 ½	18 ½	21 x10 ½
23	5428	7472	34	42.5	64.7	73.1	94.1	96.3	98.2	99	199 5/8	125	187 ¾	160 ½	22 3/8	14	37	20	23 x 11 ½
25	6404	8815	32.3	40.6	63	71.5	93.6	95.9	98	98.9	219 1/8	139	206 ½	177 ½	24 5/8	14	40	22	25 x 12 ½
27	7460	10270	30.8	38.9	61.3	70	93.1	95.6	97.8	98.7	236 1/8	149	222 ½	191 ½	26 3/8	15	42 ½	24	27 x 13 ½
29	8600	11838	29.4	37.4	59.8	68.6	92.6	95.2	97.6	98.6	252 5/8	159 ½	238	205	28 3/8	15 ½	45 ½	26	29 x 14 ½
31	9820	13516	28.1	35.9	58.4	67.2	92.1	94.9	97.4	98.5	271 5/8	172 ½	256	221	30 3/8	16	48 ½	27 ½	31 x 15 ½
33	11120	15300	26.9	34.6	57	65.9	91.6	94.6	97.2	98.4	287 5/8	182 ½	271 ½	235	32 3/8	16 ½	52	29	33 x 16 ½
35	12500	17205	25.7	33.3	55.7	64.7	91.2	94.2	97	98.2	304 1/8	193	287	248 ½	34 7/8	17	54 ½	31	35 x 17 ½
37	13950	19211	24.8	32.2	54.4	63.5	90.7	93.9	96.8	98.1	321 1/8	203 ½	303	262 ½	36 1/8	17 ½	57 ½	33	37 x 18 ½
39	15491	21331	23.9	31.1	53.3	62.3	90.2	93.6	96.6	98	336 5/8	213 ½	318 ½	276	38 1/8	18	62 ½	34 ½	39 x 19 ½
41	17111	23570	23	30.1	52.1	61.2	89.8	93.2	96.4	97.8	352 5/8	223 ½	333	289	40 ¼	18	65 ½	36	41 x 20 ½
43	18827	25911	22.2	29.1	51.1	60.2	89.4	92.9	96.2	97.7	372 5/8	237	352	306	42 ¼	18 ½	78 ½	38	43 x 21 ½
45	20600	28360	21.5	28.2	50	59.2	88.9	92.6	96	97.6	389 5/8	247 ½	368	320	44 ¼	19	71	40	45 x 22 ½
47	22471	30931	20.8	27.4	49.1	58.2	88.5	92.3	95.8	98.6	405 5/8	257 ½	383	333	46 ¼	19	74	42	47 x 23 ½
49	24411	33611	20.1	26.6	48.1	57.3	88.1	92	95.6	97.5	422 ¼	267 ½	398 ½	346 ½	48 ¼	19	77 ½	43 ½	49 x 24 ½
51	26431	36400	19.4	25.8	47.2	56.4	87.7	91.6	95.4	97.3	438 1/8	278	414	360 ½	50	19 ½	79 ½	45	51 x 25 ½
53	28555	39300	18.9	25.1	46.4	55.5	87.3	91.3	95.2	97.1	454 1/8	288 ½	429 ½	374 ½	51 ¾	20	82	47	53 x 26 ½
55	30735	42300	18.3	24.4	45.5	54.6	86.9	91	95.1	96.9	473 5/8	301 ½	448	391	53 ¾	20 ½	85 ½	49	55 x 27 ½
57	33000	45430	17.8	23.8	44.7	53.8	86.5	90.7	95	96.8	489 5/8	311 ½	463	404	55 ¾	21	89	50 ½	57 x 28 ½
59	35361	48655	17.3	23.2	44	53	86.1	90.4	94.7	96.7	505 7/8	322	478 ¾	418	57 13/16	21	92 ½	52	59 x 29 ½

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.



Cyclone Size	Flow Rate (acfm) @		Fractional Efficiency (percent by weight) @ Micron Size (Stokes Equivalent Diameters)								Approximate Dimensions (inches)								
	5" W.G.	10" W.G.	5		10		30		50		A	B	C	D	E	F	G	H (sq)	J
3	93	129	68.5	75.6	88	92	98.9	99.5	99.8	99.9	31 15/16	16 9/16	28 1/8	20 7/8	3 1/8	5	6 ¾	2 ¾	3 x 1 ½
5	255	353	59.7	67.5	82.4	87.7	98.1	98.9	99.5	99.8	48 1/16	28 11/16	44 ½	34	4 15/16	6	8 ¾	4 ¾	5 x 2 ½
7	495	690	53.3	61.5	77.8	84	97.1	98.3	99.2	99.6	64 7/16	38 7/16	60	45 ¾	6 13/16	7	11 ¾	6 ¼	7 x 3 ½
9	824	1134	48.7	56.7	74.3	80.7	96.2	97.7	98.9	99.4	78 ¾	48	73 1/8	58 3/8	8 5/8	8	14 ¾	8 ½	9 x 4 ½
11	1258	1732	44.4	52.3	70.7	77.5	95.2	97.1	98.6	99.2	96 5/16	57 11/16	89 ½	71	10 7/16	9	16 ¾	9 ¾	11 x 5 ½
13	1749	2408	41.3	49	67.9	75	94.3	96.5	98.3	99	112 1/16	69 7/16	104 ¼	85 ¾	12 5/16	10	20 ½	11 ¾	13 x 6 ½
15	2320	3194	38.6	46.3	65.4	72.8	93.5	95.9	97.9	98.8	125 5/16	77	118 7/8	96 3/8	14 1/8	11	23 ½	13 ¾	15 x 7 ½
17	2972	4091	36.3	43.8	63.2	70.7	92.7	95.3	97.6	98.6	141 1/16	86 11/16	133 ¼	109	15 15/16	12	25 ½	15 ¼	17 x 8 ½
19	3702	5098	34.3	41.7	61.1	68.8	91.8	94.7	97.3	98.4	159 5/16	96 7/16	148 ¼	121 ¼	17 13/16	13	28 ½	17 ¼	19 x 9 ½
21	4514	6217	32.5	39.7	59.3	67	91	94.2	96.9	98.2	173 3/8	106	162 3/8	134 3/8	19 5/8	13	31 ½	18 ¾	21 x 10 ½
23	5408	7447	30.7	38	57.6	65.4	90.3	93.6	96.6	98	188 ½	115 11/16	176 ¾	147	21 7/16	14	33 ½	20 3/8	23 x 11 ½
25	6380	8788	29.5	36.4	56	63.9	89.6	93	96.3	97.8	206	125 5/16	193 ½	159 ¾	23 5/16	14	37	22 3/8	25 x 12 ½
27	7439	10238	28.2	35	54.5	62.4	88.8	92.5	96	97.6	220 1/8	138	206	175 ½	24 7/8	14 ½	39 ½	24	27 x 13 ½
29	8568	11800	27	33.7	53	61	88.1	92	95.6	97.3	236 ½	147 ½	220 ½	188	26 7/8	15	42 ½	26	29 x 14 ½
31	9790	13473	26	32.5	51.8	59.8	87.5	91.5	95.3	97.1	251 ¼	157 ½	235 ¼	201	28 ½	15 ½	45	27 ½	31 x 15 ½
33	11085	15255	25	31.4	50.6	58.6	86.8	91	95	96.9	266 ½	167	249 ½	213 ½	30 3/8	16	47 ½	29	33 x 16 ½
35	12455	17150	24.1	30.3	49.4	57.4	86.1	90.5	94.7	96.7	281 ½	176 ½	264	226	32 ¼	16	50 ½	31	35 x 17 ½
37	13840	19050	23.3	29.4	48.4	56.4	85.5	90	94.4	96.5	292 ½	186 ½	274	239	34 1/8	16 ½	53	33	37 x 18 ½
39	15380	21160	22.5	28.5	47.4	55.3	84.9	89.5	94	96.3	304 ¾	196	285 ¼	248 ½	35 7/8	17	55 ½	34 ½	39 x 19 ½
41	16992	23390	21.8	27.7	46.4	54.4	84.3	89.1	93.8	96	328	205 ½	307 ½	264	37 5/8	17 ½	59 ½	36	41 x 20 ½
43	18760	25836	21	26.8	45.4	53.4	83.7	88.6	93.4	95.8	347	218 ½	325 ½	280	39 5/8	18	63	38	43 x 21 ½
45	20535	28282	20.4	26	44.5	52.5	83.1	88.2	93.1	95.6	259 ½	228	337	289 ½	41 ½	18	65 ½	40	45 x 22 ½
47	22395	30835	19.8	25.3	43.7	51.6	82.5	87.7	92.8	95.4	375	237 ½	351 ½	302	43 ¼	18 ½	68 ½	42	47 x 23 ½
49	24334	33510	19.2	24.7	42.9	50.7	82	87.3	92.6	95.2	390 ¾	247 ½	366 ¼	315	45 ¼	19	71	43 ½	49 x 24 ½
51	26363	36290	18.7	24	42	49.9	81.5	86.8	92.3	95	406	257	380 ½	327 ½	47	19	73 ½	45	51 x 25 ½
53	28475	39180	18.2	23.4	41.4	49.2	80.9	86.4	92	94.8	421 ½	266 ½	395	340	48 ¾	19	76 ½	47	53 x 26 ½
55	30650	42190	17.7	22.9	40.6	48.4	80.4	86	91.7	94.6	437 ½	276 ½	410	353	50 ¾	19 ½	79	49	55 x 27 ½
57	32825	45290	17.2	22.3	39.9	47.7	79.9	85.6	91.4	94.4	457 ¾	286	429 ¼	368 ½	52 ½	20	81 ½	50 ½	57 x 28 ½
59	35235	48520	16.8	21.8	39.3	47	79.4	85.2	91.1	94.2	467	295 ½	438 ½	378	54 ¼	20 ½	83 ½	52	59 x 29 ½

An infinite number of size, air flow, pressure drop, and specific gravity and grain load combinations exist. The Fractional Efficiencies shown above are based on standard air conditions at a specific gravity and grain load of 1.0.

FISHER-KLOSTERMAN®

A CECO Environmental Company

Fisher-Klosterman
822 South 15th Street
Louisville, KY 40210
Phone: 502.572.4000
Fax: 502.572.4025
fki@fkinc.com
www.fisherklosterman.com

Technology and Service

The latest state-of-the-art pollution control technology – and fast, comprehensive technical support and service. Both are just a quick phone call or e-mail away. CECO has production facilities and full-service centers across the map. There's a CECO facility near you, ready to meet your every clean-air need.

Kirk & Blum
Cincinnati, OH
3120 Forrer Street
Cincinnati, OH 45209
Phone: 513.458.2600
Fax: 513.351.5475
Toll Free: 800.333.5475
kirkblum@cecoenviro.com
www.kirkblum.com

- Canton, MS
- Columbia, TN
- Defiance, OH
- Greensboro, NC
- Indianapolis, IN
- Lexington, KY
- Louisville, KY

Busch International
10431 Perry Highway
Wexford, PA 15090
Phone: 724.940.2326
Fax: 724.940.4140
busch@cecoenviro.com
www.busch-co.com

CECO Abatement
5201 Walnut Avenue,
Suite 1
Downers Grove, IL 60515
Phone: 630.493.0624
Fax: 630.493.1837
cecoabatement@cecoenviro.com
www.cecoenviro.com

CECO Energy
Management Team
3131 Disney Street
Cincinnati, Oh 45209
Phone: 513.458.2677
Fax: 513.458.2622
cemt@cecoenviro.com
www.cecoenviro.com

CECO Environmental Mexico
S. De R.L. De C.V.
Humberto Lobo #9442
Parque Industrial Mitras
Garcia, N. L. C.P. 66000 Mexico
Phone: 011.52.81.8381.0792
jvillarreal@cecoenviro.com
www.cecoenviro.com

CECO Filters
1029 Conshohocken Road
Conshohocken, PA 19428-0683
Phone: 610.825.8585
Fax: 610.825.3108
Toll Free: 800.220.8021
cecofilters@cecoenviro.com
www.cecoenviro.com

EFFOX
9759 Inter Ocean Drive
Cincinnati, Oh 45246
Phone: 513.874.8915
Fax: 513.874.1343
sales@effox.com
www.effox.com

Fisher-Klosterman
P.O. Box 11190
822 South 15th Street (40210)
Louisville, KY 40251-0190
Phone: 502.572.4000
Fax; 502.572.4025
fki@fkinc.com
www.fkinc.com

Buell Division
Phone: 717.274.7036

Fisher-Klosterman-Buell Shanghai
Phone: 011.86.21.50673100

AVC Specialists
Phone: 805.531.8900

GMD Environmental
P.O. Box 11375
305 West Arlington Avenue
Fort Worth, TX 76110
Phone: 817.926.9294
Fax: 817.923.0035
Toll Free: 800.725.2463
eng@gmdenv.com
www.gmdenv.com

H.M. White
12855 Burt Road
Detroit, MI 48223
Phone: 313.531.8477
Fax: 313.531.0522
info@hmwhite.com
www.hmwhite.com

K&B Duct
8735 West Market Street
Greensboro, NC 27409
Phone: 336.668.3773
Toll Free: 866.KNB-DUCT
(866/562-3828)
Fax: 336.668.0043
info@kbduct.com
www.kbduct.com

3120 Forrer Street
Cincinnati, OH 45209
Toll Free: 800.333-KIRK
(800.333.5475)
kb-parts@kirkblum.com

Clearfield, UT
Phone: 801.728.6533

KBD Technic, Inc.
3131 Disney Street
Cincinnati, OH 45209
Phone: 513.351.6200
Fax: 513.351.4071
kbdtechnic@cecoenviro.com
www.kbd-technic.com

CECO Environmental Corp.
3120 Forrer Street
Cincinnati, OH 45209
Phone: 513.458.2600
Fax: 513.458.2647
Toll Free. 800.333.5475
cecoenviro@cecoenviro.com
www.cecoenviro.com
NASDAQ: CECE

CECO Environmental