

CYCLONE COLLECTORS

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Young Industries has been fabricating Cyclone collectors since our founding in 1947. The current line is based on our many years of experience using the cyclone as a primary receiver in dilute phase pneumatic conveying systems. The Cyclone is a cost-effective means to separate product from the conveying air/product stream. It has no moving parts and is dimensionally matched to the volume/CFM being handled.

Material separation is accomplished within the collector by centrifugal force. Product laden air moved by either pressure or vacuum is spun at a high velocity within the interior of the collector. Product enters the collector tangentially at the top section of the housing and moves in a descending spiral to the bottom of the cone. The convey air is exhausted through an inner tube to the top of the collector.

**ADVANCED
TECHNOLOGY
PROVEN DESIGN**

S-218-100.00



FABRICATED TO YOUR REQUIREMENTS

Our Cyclone is used as a Primary Product Receiver where heavy concentrations of product are collected. In most applications the air exhaust of the Cyclone is followed by a Young Industries Uni-cage Filter to cleanse the air stream before clean air is released to the atmosphere. The air exhaust is also available with a weather protected discharge hood when the convey air can be vented directly to the atmosphere.

Cyclone sizing is derived from the CFM of convey air in the system. Additional factors are particle size and shape, bulk density and size distribution. Our Cyclone collectors are available to handle air volumes ranging from 100 CFM to 12,000 CFM. Cyclones are fabricated from carbon steel, aluminum, or 300 series stainless steel, with other materials available as needed by the application.



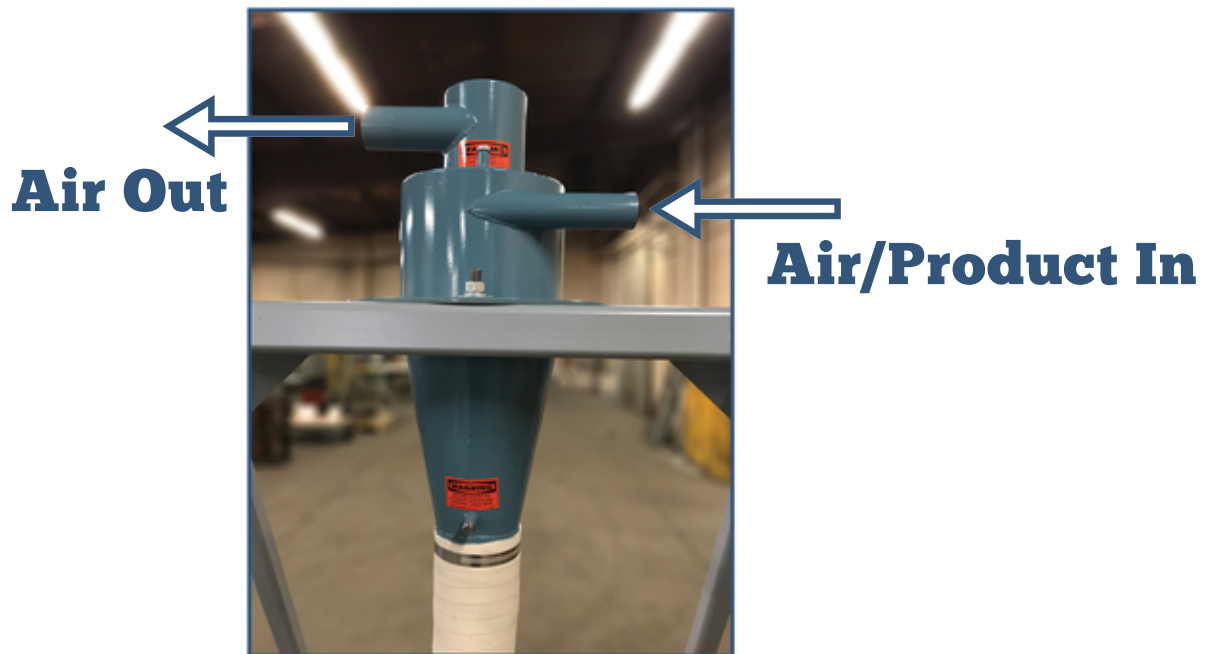
CYCLONE COLLECTOR

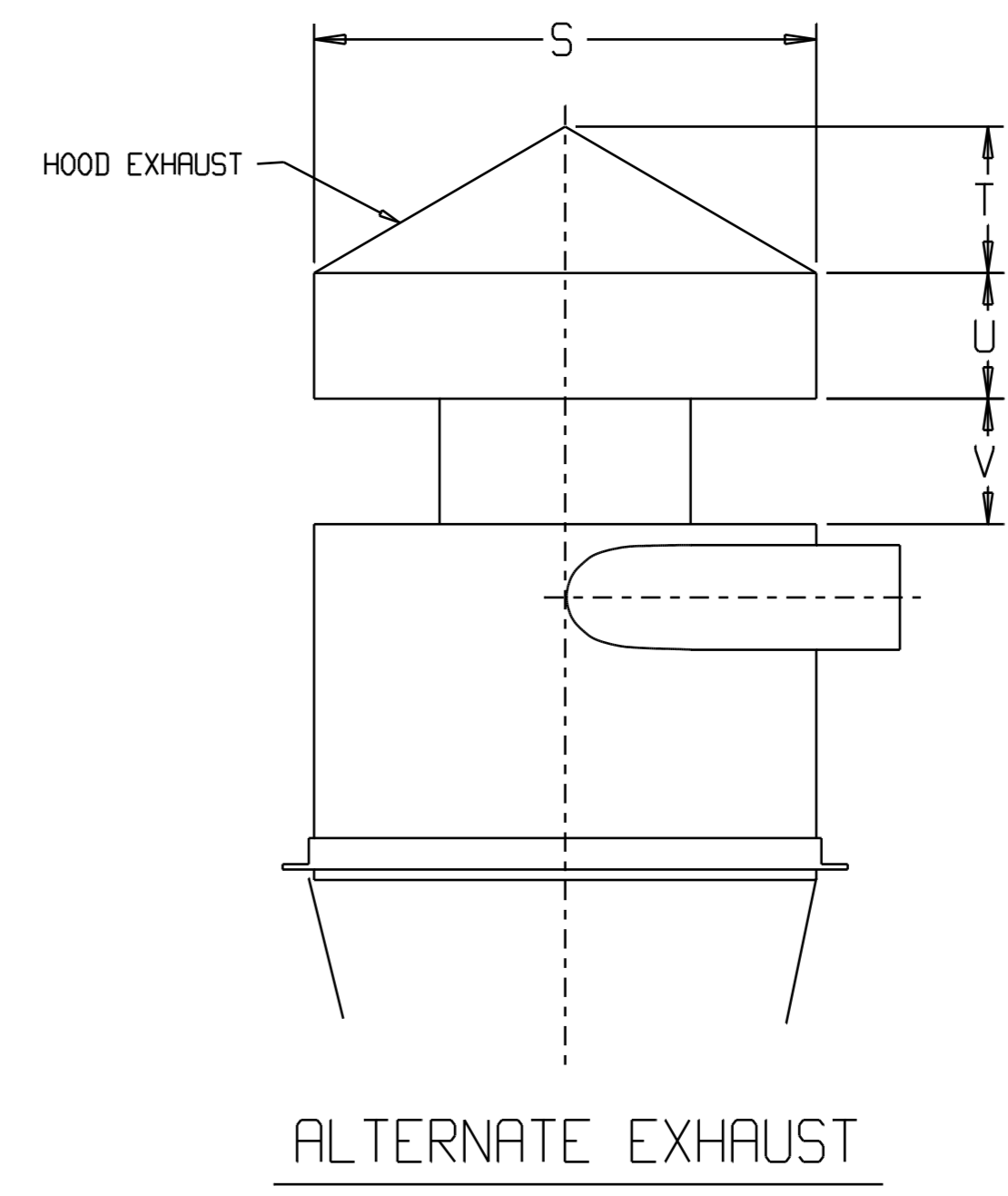
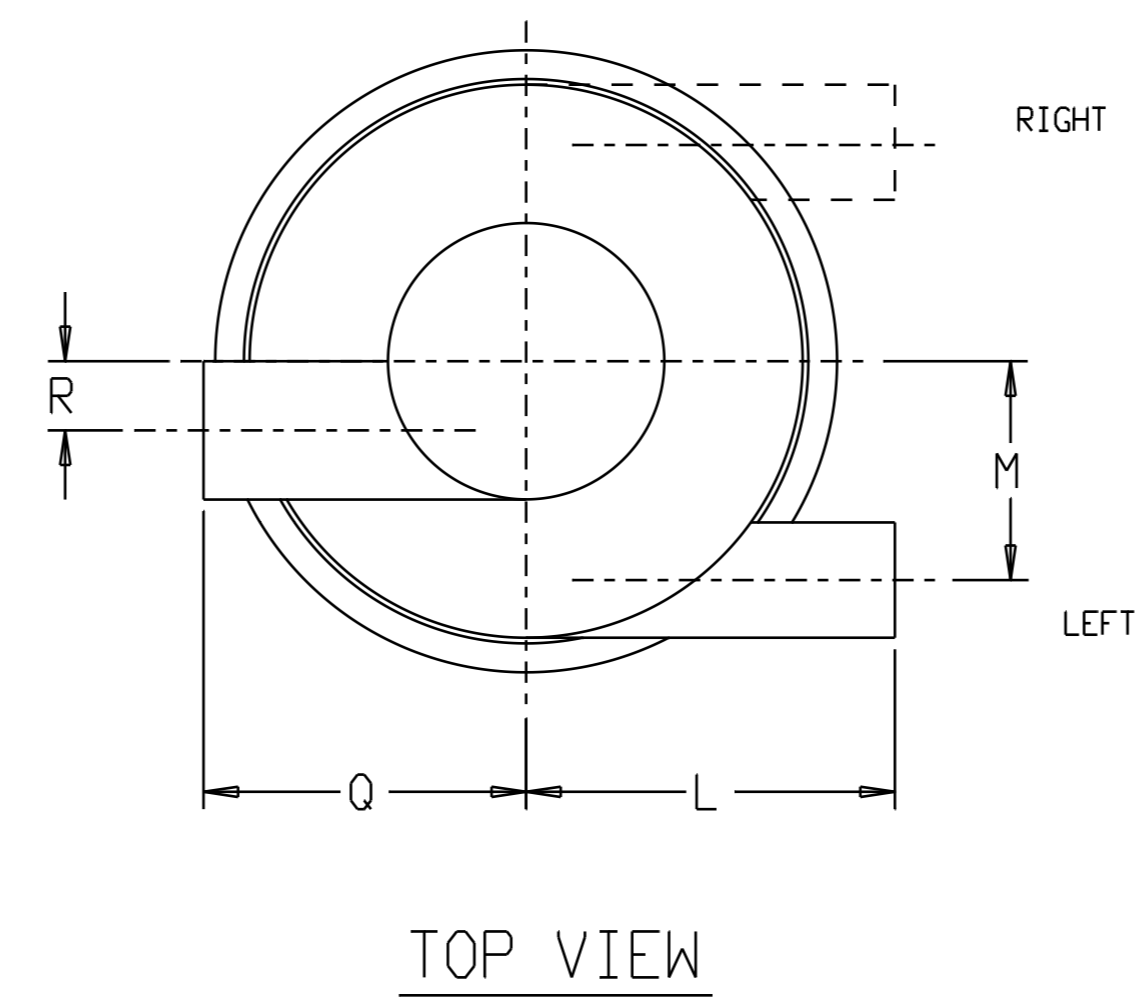
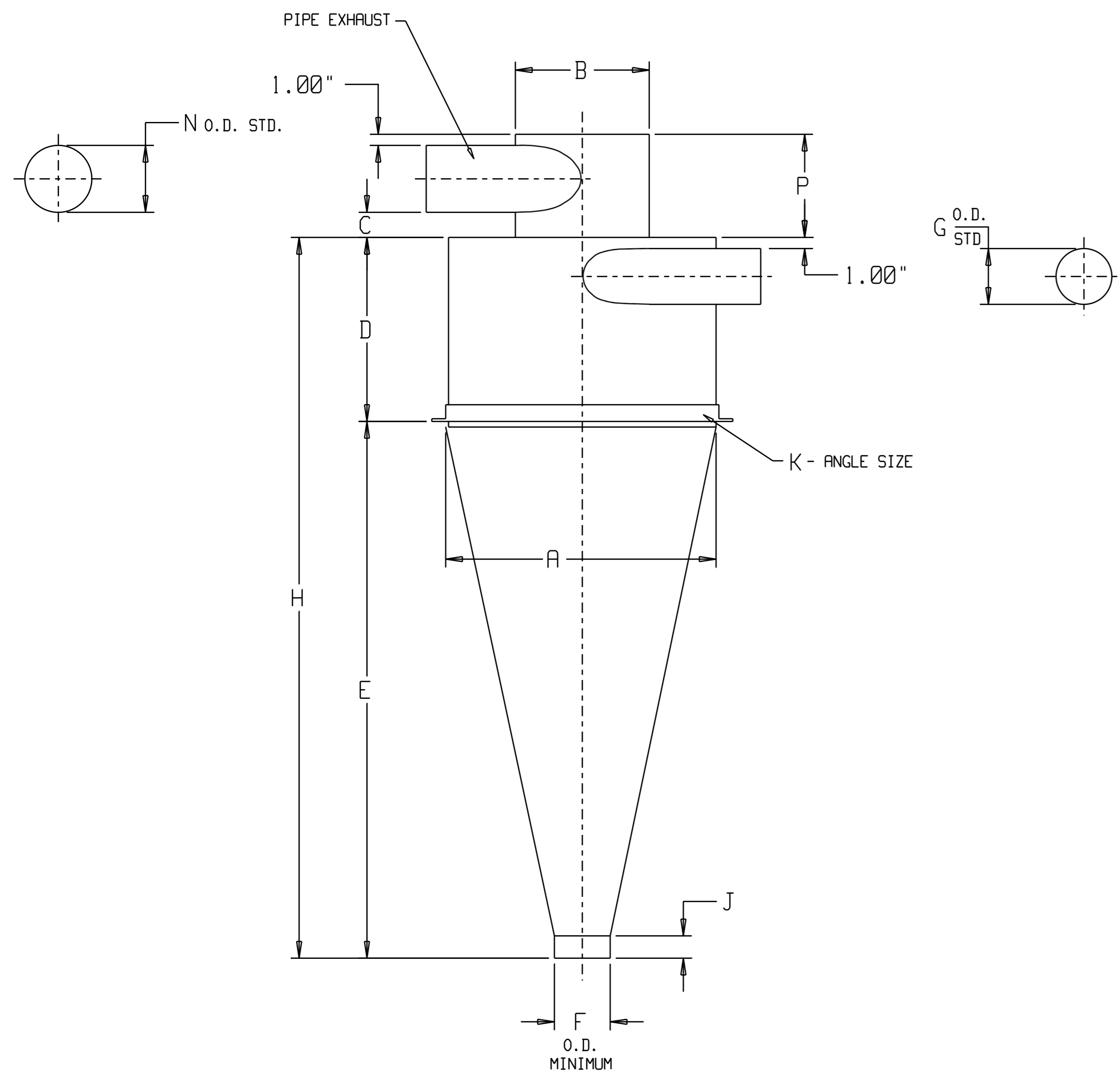
**Sizes 10" Dia. Through 78" Dia.
100 CFM to 12,000 CFM**

Standard Cyclones are used in dilute phase pneumatic conveying systems. They can be used on either positive or vacuum systems as needed. For special high temperature or high-pressure applications, we can design and fabricate Cyclone Collectors per the ASME code. Reference Product Brochure S-100-104.00 for Young Industries ASME capabilities.



If you are considering a Cyclone Collector for your application, please contact Young Industries for assistance. Our Application Engineers will be happy to assist and help with the proper selection to meet your needs.





COLLECTOR IS SHOWN LEFT HAND WHICH IS STANDARD, RIGHT HAND ASSEMBLY IS AVAILABLE WHEN SPECIFIED.

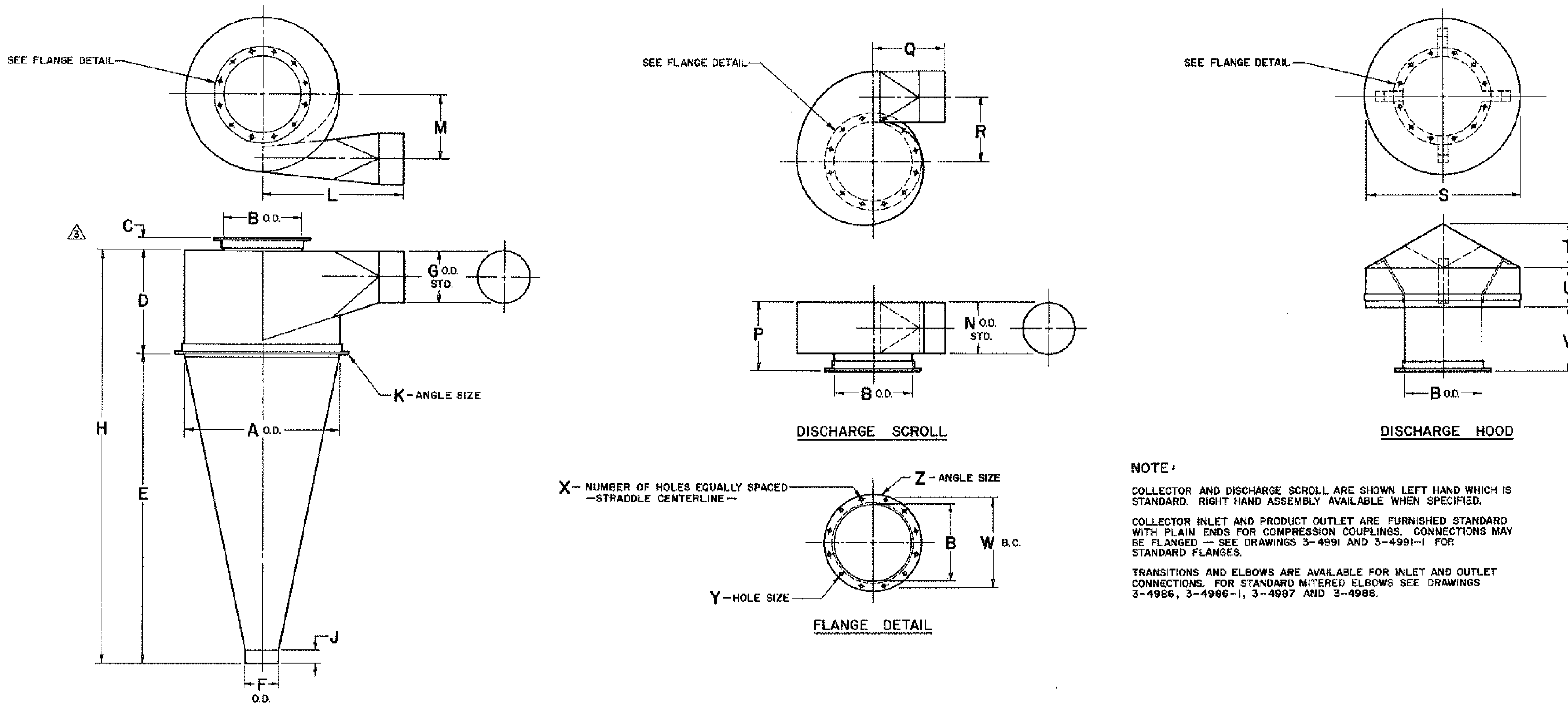
COLLECTOR INLET AND OUTLET ARE FURNISHED IN A FIXED POSITION AS SHOWN WHICH IS STANDARD. A LOOSE FLANGE CAN BE FURNISHED TO PERMIT TURNING THE AIR OUTLET THROUGH 360°. A LOOSE FLANGE CAN ALSO BE FURNISHED FOR THE BOTTOM PRODUCT OUTLET

ALL CONNECTION POINTS ARE FURNISHED STANDARD WITH PLAIN ENDS FOR COMPRESSION COUPLINGS. FLANGES ARE AVAILABLE WHEN ORDERED.

SIZE A	CAPACITY - CFM		B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	STD. GAUGE		SHIPPING WEIGHT-STL
	MIN.	MAX.																				STL-S/S	ALUM.	
10	120	200	5	1.50	8.00	18.75	3	2.38	26.75	1.50	1.25 X 1.25 X .12	9	3.81	2.88	5.38	6.5	1.06	10	2.88	2.5	3	14	10	65
12	195	290	6	1.50	9.25	23.62	3	3	32.88	1.50	1.25 X 1.25 X .12	10	4.5	3.5	6	7.5	1.25	12	3.5	3	3	14	10	85
14	265	395	7	1.50	11.00	28.38	3	3.5	39.38	1.50	1.25 X 1.25 X .12	11	5.25	4	6.5	9	1.5	14	4.06	3.5	4	14	10	115
16	345	520	8	1.50	12.50	30.75	4	4	43.25	1.50	1.25 X 1.25 X .12	12	6	4.5	7	10	1.75	16	4.62	4	4	14	10	140
18	435	655	9	1.50	13.00	36.12	4	4.5	49.12	2	1.25 X 1.25 X .12	13	6.75	5.56	8	11	1.72	18	5.19	4.5	4.5	14	10	175
20	540	810	10	2.25	14.50	40.88	4	5	55.38	2	1.50 X 1.50 X .19	14	7.5	6	9.25	12	2	20	5.81	5	5	14	10	210
22	655	980	11	2.25	16.00	43.25	5	5.56	59.25	2	1.50 X 1.50 X .19	15	8.22	6.62	9.88	13	2.19	22	6.38	5.5	5.5	14	10	250
24	780	1170	12	2.25	16.50	48.12	5	6	64.62	2	1.50 X 1.50 X .19	16	9	8	11.25	14	2	24	6.94	6	6	14	10	280
28	1060	1590	14	2.25	20.25	57.75	5	6.62	78	2	1.50 X 1.50 X .19	18.5	10.69	8.62	11.88	16	2.69	28	8.06	7	7	12	10	520
32	1385	2080	16	2.25	23.25	64.88	6	8	88.12	2	1.50 X 1.50 X .19	21.5	12	10	13.25	18	3	32	9.25	8	8	12	10	660
36	1755	2635	18	2.50	25.25	74.5	6	8.62	99.75	2	2 X 2 X .25	24	13.69	10.75	14.25	20	3.62	36	10.44	9	9	12	10	815
40	2170	3250	20	2.50	27.5	84.12	6	10	111.62	2	2 X 2 X .25	26.5	15	12	15.5	22	4	40	11.56	10	10	12	10	950
44	2625	3937	22	2.50	30	93.75	6	10.75	123.75	2	2 X 2 X .25	29.5	16.62	12.75	16.25	24	4.62	44	12.75	11	11	12	10	1155
48	3120	4680	24	2.50	33	98.5	8	12	131.5	2	2 X 2 X .25	32	18	12.75	16.25	26	5.62	48	13.88	12	12	12	10	1275
54	3950	5925	27	2.50	37	112.88	8	12.75	149.88	2	2 X 2 X .25	36	20.81	14	17.5	29	6.5	54	15.88	13.5	13.5	10	.19	1910
60	4880	7320	30	2.50	40.5	122.50	10	14	163	2	3 X 3 X .38	40	23	16	19.5	32	7	60	17.38	15	15	10	.19	2285
66	5900	8855	33	2.50	45	136.88	10	16	182.38	2	3 X 3 X .38	44	25	18	21.5	35	7.5	66	19.06	16.5	16.5	10	.19	2505
72	7025	10540	36	2.50	48.5	146.5	12	18	195	2	3 X 3 X .38	48	27	20	23.5	38	8	72	20.81	18	18	10	.19	2770
78	8245	12370	39	2.50	53	160.88	10	20	213.88	2	3 X 3 X .38	52	29	22	25.5	41	8.5	78	22.56	19.5	19.5	10	.19	3205

3			
2			
1			
REV. NO.	DESCRIPTION	DATE	BY
REVISIONS			
CUSTOMER		CUST	
CUST. NO.		CUST #	
YOUNG ORDER NO.		YI #	
TITLE			
ASSEMBLY CYCLONE COLLECTOR, MODEL 'P' SIZES 10 THRU 78 INCL. STANDARD DIMENSION SHEET			
THE YOUNG INDUSTRIES, INC. HUNY, PENNSYLVANIA 17756 TELEPHONE: 570-546-3185			
DRAWN BY		SCALE	
CHECKED BY		DATE	
DRAWING NUMBER		4-5607-00.00	

GENERAL TOLERANCES			
UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY			
MACHINING	.XX ± .02	.XXX ± .005	ANGLE ± .50°
SURFACE ROUGHNESS HEIGHT 63 MICROINCHES OR LESS			
FABRICATION	UNDER 6	6 TO 24	24 TO 60 OVER 60
	± .06	± .12	± .19 ± .25
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
PRINT ISSUE DATE	CRD FILE NUMBER: /mlp/data/		
	FILE /218/		



NOTE:

COLLECTOR AND DISCHARGE SCROLL ARE SHOWN LEFT HAND WHICH IS STANDARD. RIGHT HAND ASSEMBLY AVAILABLE WHEN SPECIFIED.

COLLECTOR INLET AND PRODUCT OUTLET ARE FURNISHED STANDARD WITH PLAIN ENDS FOR COMPRESSION COUPLINGS. CONNECTIONS MAY BE FLANGED — SEE DRAWINGS 3-4991 AND 3-4991-1 FOR STANDARD FLANGES.

TRANSITIONS AND ELBOWS ARE AVAILABLE FOR INLET AND OUTLET CONNECTIONS. FOR STANDARD MITERED ELBOWS SEE DRAWINGS 3-4986, 3-4986-1, 3-4987 AND 3-4988.

SIZE A	CAPACITY — CFM		B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	STD. GAUGE		SHIPPING WEIGHT STL.
	MIN.	MAX.																								STL-S/S	ALUM.	
10	120	200	5	1 1/2	8	18 3/4	3	2 3/8	26 3/4	1 1/2	1 1/4 x 1 1/4 x 3/16	11	4 1/8	2 7/8	4 7/8	6 1/4	3 15/16	10	2 7/8	2 1/2	4	6 1/4	6	5/16	1 x 1 x 1/8	14	10	70
12	195	290	6	2	9 1/4	23 3/8	3	3	32 7/8			12 1/2	5	3 1/2	6	6 3/4	4 3/4	12	3 1/2	3	5	7 3/4		7/16	1 1/2 x 1 1/2 x 3/16			90
14	265	395	7		11	28 3/8	4	3 1/2	39 3/8			14	5 7/8	4	6 1/2	7 1/4	5 1/2	14	4 1/8	3 1/2	6	8 3/4						120
16	345	520	8		12 1/2	30 3/4	4	4	43 1/4			15 1/2	6 3/4	4 1/2	7	7 1/2	6 1/4	16	4 5/8	4	6 1/2	9 3/4	8					145
18	435	655	9		13	36 1/8	4 1/2	4 1/2	49 1/8	2		17	7 1/2	5 9/16	8 1/16	8	7 9/32	18	5 3/16	4 1/2	7 1/2	10 3/4						180
20	540	810	10		14 1/2	40 7/8	5	5	55 3/8		1 1/2 x 1 1/2 x 3/16	18 1/2	8 3/8	6	8 1/2	8 1/2	8	20	5 13/16	5	8 1/2	11 3/4						220
22	655	980	11		16	43 1/4	5	5 9/16	59 1/4			20 1/2	9 1/4	6 5/8	9 1/8	9	8 13/16	22	6 3/8	5 1/2	9 1/2	12 3/4						260
24	780	1,170	12		16 1/2	48 1/8	6	6	64 9/8			21 1/2	10	8	10 1/2	10 1/4	10	24	6 15/16	6	10	13 3/4	12					295
28	1,060	1,590	14		20 1/4	57 3/4	6 5/8	7 8				24 1/2	11 3/4	8 5/8	11 1/8	10 1/2	11 5/16	28	8 1/16	7	12	15 3/4				12		540
32	1,385	2,080	16		23 1/4	64 7/8	6	8	88 1/8			27 1/2	13 1/2	10	12 1/2	11 1/2	13	32	9 1/4	8	14	17 3/4	16			12		680
36	1,755	2,635	18		25 1/4	74 1/2	6 5/8	9 9 3/4			2 x 2 x 1/4	30 1/2	15 1/8	10 3/4	13 1/4	12 1/4	14 3/8	36	10 7/16	9	16	19 3/4						835
40	2,170	3,250	20		27 1/2	84 1/8	10	11 5/8				34	16 3/4	12	14 1/2	13	16	40	11 9/16	10	18	21 3/4	20					970
44	2,625	3,937	22		30	93 3/4	10 3/4	12 3/4	123 3/4			37	18 1/2	12 3/4	15 1/4	15 1/2	17 3/8	44	12 3/4	11	20	23 3/4						1,175
48	3,120	4,680	24		33	98 1/2	8	12	131 1/2			39 1/2	20 1/4	12 3/4	15 1/4	15 1/2	18 3/8	48	13 7/8	12	22	25 3/4	24					1,300
54	3,950	5,925	27		37	112 7/8	12 3/4	14 1/2	149 7/8			44 1/2	22 3/4	14	16 1/2	16 1/2	20 1/2	54	15 5/8	13 1/2	25	28 3/4	28			10	3/16	1,945
60	4,880	7,320	30		40 1/2	122 1/2	10	14	163		3 x 3 x 3/8	49 1/2	25 1/4	16	18 1/2	18	23	60	17 5/16	15	28	31 3/4						2,330
66	5,900	8,855	33		45	136 7/8	16	16	182 3/8			55	27 3/4	18	20 1/2	19 1/2	25 1/2	66	19 1/16	16 1/2	31	34 3/4	32					2,555
72	7,025	10,540	36		48 1/2	146 1/2	12	18	195			59 1/2	30 1/4	20	22 1/2	21	28	72	20 3/16	18	34	37 3/4						2,825
78	8,245	12,370	39		53	160 7/8	20	21 3/8				64	32 7/8	22	24 1/2	22 1/2	30 1/2	78	22 9/16	19 1/2	37	40 3/4						3,270

3	"H" DIMENSION LINE INCLUDED "C"	12-1-01	R.D.H.
2	GENERAL REVISIONS	2-18-81	R.D.H.
1	REVISED TO FLAT TOP	10-27-77	R.D.H.
REV. NO.	DESCRIPTION	DATE	BY
REVISIONS			
CUSTOMER			
CUST. NO.			
YOUR ORDER NO.			
TITLE			
MODEL "D" CYCLONE COLLECTORS			
THE YOUNG Y INDUSTRIES, INC. MUNCY, PENNSYLVANIA 17750 TELEPHONE: 717-548-2100			
DRAWN BY		SCALE NONE	
CHECKED BY R.D.H.		DATE 10-20-76	
PRINT/ISSUE DATE		DRAWING 4-4797	