

cincinnati fan

OEM and Industrial Air Handling Specialist



**SERIES
CPF**

**CENTRIFUGAL
PLUG
FANS**

**CLASS II
CLASS III**

7697 Snider Road, Mason, OH 45040-9135

Telephone: 513-573-0600

Visit us at www.cincinnati.com for more information.

**Cat. No. CPF-108
Supersedes CPF-603**



Cincinnati fan

A Company That Stands Behind Its Product

Since the founding of **Cincinnati Fan** in 1956, the company's mission has been to provide quality products at competitive prices, backed by dependable service.

This mission is carried out by specializing in the market for industrial air handling products up to 125 HP. But specialization does not mean the product line is small. **Cincinnati Fan** offers a wide variety of standard and customized products, production flexibility, and customer responsiveness.

Cincinnati Fan has over 170 experienced sales engineers across the U.S. and Canada ready to serve your air handling needs.

Cincinnati Fan can provide:

- Technical evaluation for correct performance conditions.
- Review of air stream and ambient conditions that require special attention.
- Selection of proper components to meet required design specifications.
- Selection of proper accessories.
- System analysis for proper fan design.

Cincinnati Fan operates in a modern facility specifically designed for world class manufacturing enabling us to build standard products to order, including accessories, and ship within 5 to 10 working days.

With support like this, you can be sure your **Cincinnati Fan** product will be well-built and will provide maximum dependability and longevity.

Visit us at www.cincinnati.com for more information.

SPECIFICATIONS FOR CPF SERIES

Centrifugal plug fans shall be Cincinnati CPF Series, Size _____, Arrangement _____ Class _____.
Capacity: _____ CFM, _____ Static Pressure at standard conditions.
Operating conditions: _____ °F, _____ Ft. Altitude.

Backward inclined wheels shall have welded blades and are designed to meet AMCA Class _____ conditions. Construction gauges shall be: _____ gauge shroud, _____ gauge backplate, _____ gauge blades (see page 20 for correct gauges for each class). Wheels shall be dynamically balanced to assure smooth operation. Shafts shall be turned, ground and polished steel (or stainless steel). All fans shall be test run at the factory before shipping.

All bearings shall be grease-lubricated, heavy-duty, self-aligning ball bearings in cast iron pillow blocks. Bearings shall be selected for optimal performance depending on fan size and class with an L10 life of 30,000 hours minimum. V-belt drive shall be selected for a minimum of 1.3 times nominal horsepower.

(All parts in contact with airstream shall be standard steel or stainless steel as specified.)

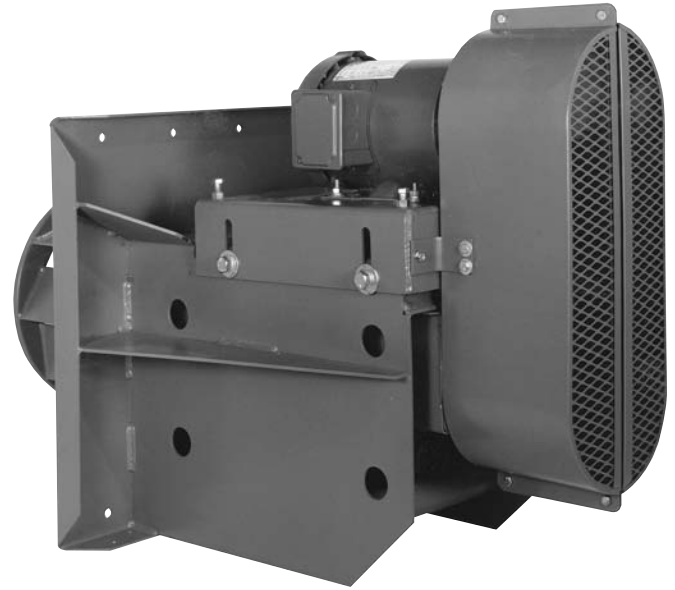
Before painting, all steel shall be cleaned by detergent wash, phosphatized and painted with machine gray enamel.

TWO STANDARD ARRANGEMENTS



ARRANGEMENT 4 (DIRECT DRIVE)

- Motor mounted on motor base.
- Wheel mounted on motor shaft.
- Maximum temperature 200°F.
See other arrangements for higher temperatures.



ARRANGEMENT 9 (V-BELT DRIVE)

- Motor mounted on adjustable base over the fan shaft.
- Wheel mounted on fan shaft with two pillow block bearings.
- Maximum temperature of standard design is 300°F.
High temperature fans available up to 800°F.
- Shown with belt guard.



STANDARD INLET BELL

Designed for smooth air entrance into the wheel for maximum efficiency.



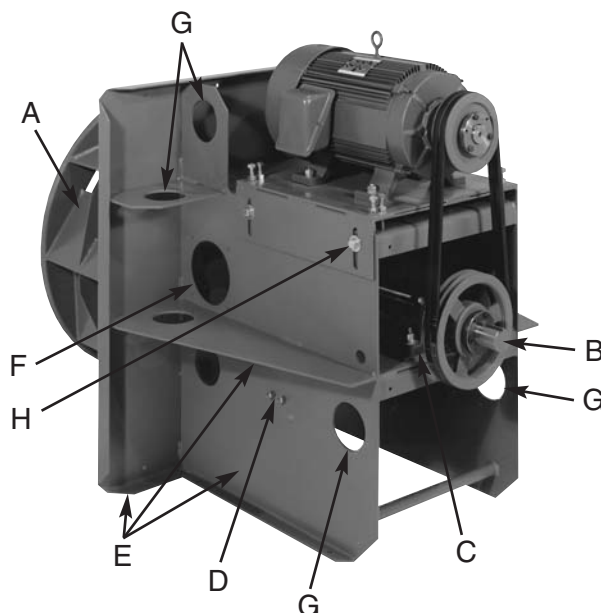
OPTIONAL INSULATION PLUG BOX

Required for 451°F. to 800°F. arrangement 9 only.
May be furnished by customer.
Box available in 2", 3", 4", 5" or 6" depths.

CPF SERIES FEATURES

- A) Backward inclined blades are fabricated of heavy gauge, high-strength steel to assure long lasting, efficient operation.
- B) Turned, ground and polished shafting assures smooth operation.
- C) Heavy-duty, self-aligning, relubricatable ball bearings in cast-iron pillow blocks. Bearings are selected for optimal performance depending on fan size and class with an L10 life of 30,000 hours minimum.
- D) Extended grease fittings for easy lubrication of fan bearings.
- E) Panel and base construction with internal and external supports to maximize rigidity and assure long equipment life.
- F) Inboard bearing access hole.
- G) Multiple lifting points for easy installation of fan onto customer's equipment.
- H) Heavy duty motor support base with four point adjustability for proper belt tension and alignment.

Arrangement 9 shown with belt guard removed.



SPARK-RESISTANT CONSTRUCTION

Type A: NOT AVAILABLE

Type B: Fabricated aluminum wheel and aluminum rubbing ring on motor shaft or fan shaft. **Maximum temperature 200°F.**

Type C: Consists of aluminum inlet bell and aluminum plate on drive side of the fan. **Maximum temperature 800°F.**

WARNING

The use of aluminum or aluminum alloys in the presence of steel which has been allowed to rust requires special consideration. Research by the U.S. Bureau of Mines and others has shown that aluminum impellers rubbing on rusty steel may cause high intensity sparking.

The use of the above Standard in no way implies a guarantee of safety for any level of spark resistance. Spark-resistant construction also does not protect against ignition of explosive gases caused by catastrophic failure or from any airstream material that may be present in a system.

Maximum RPM for Aluminum Wheels*	
Size	Max.RPM
120	5400
130	4999
150	4712
160	4285
180	3885
200	3574
220	3550
240	2837
270	2476
300	2300

* At 70°F. Consult your local Cincinnati Fan sales representative for higher temperatures.

HIGH TEMPERATURE CONSTRUCTION

Standard Construction: Arrangement 4 is suitable to 200°F. See page 20. Arrangement 9 is suitable to 300°F. See page 21.

301°- 450°F. Construction: Standard fan with heat slinger, teflon shaft seal and high temperature aluminum paint. Arrangement 9 only. See page 21.

451°- 800°F Construction: Standard fan with heat slinger, high temperature shaft seal, high temperature bearings and high temperature aluminum paint. Insulation material is required and may be provided by the customer or, as an option, by Cincinnati Fan. Arrangement 9 only. See page 22.

WARNING: See speed reduction chart for plug thickness on page 5.

Temperature Range	Maximum RPM Reduction Factor †
Up to 175°F.	0%
176°-200°	2%
201°-300°	4%
301°-400°	7%
401°-500°	11%
501°-600°	15%
601°-700°	20%
701°-800°	30%

† Steel wheels only.

DESIGN SPECIFICATIONS

Maximum Shaft and Bearing Speeds for Belt Driven Fans Maximum Wheel Speeds and WR² (Lb.-Ft.²) for Direct Driven Fans

FAN SIZE	Maximum Shaft and Bearing Speeds for Standard "G" Overhang of 2" ①		Maximum Safe Shaft Speed with Extended Shaft Overhang of "R" ① ②					HDBI Type Steel Wheel Max RPM ③			SQBI Type Steel Wheel Max RPM ③		Aluminum Wheel Max. RPM ④
	Class II	Class III	R=2"	R=3"	R=4"	R=5"	R=6"	Class			Class		
								II	III	IV	II	III	
120 130	4189 3834	4985 4738	4700 4500	4330 4280	3820 3910	3750 3580	3300 3230	4380 3900	5400 -	- 4999	4065 3750	5000 4700	5400 4999
150 160	3513 3195	4357 3961	4220 3700	3910 3420	3790 3050	3340 2800	3000 2600	3513 3195	- -	4712 4285	3050 3042	4117 3724	4712 4285
180 200	2903 2661	3591 3285	3720 3400	3430 3190	3120 2800	2880 2600	2680 2400	2903 2661	- -	3885 3574	2593 2380	3600 3550	3885 3574
220 240	2304 2132	2824 2565	3200 2600	2970 2550	2660 2450	2400 2300	2200 2150	2304 2132	- -	3550 2837	2115	3160 2740	3550 2837
270 300	1854 1680	2262 2075	2300 2000	2200 2000	2130 1950	2050 1780	1930 1600	- -	- -	2476 2300	- -	2493 2243	2476 2300

NOTE: "G" and "R" in the above table refer to dimensions shown on catalog pages 21 and 22.

- ① All maximum safe shaft speeds are independent of temperature.
- ② All plug fans with overhung shafts ("R" dimension) include the highest class wheel construction for each fan size.
- ③ For steel wheels up to 175°F. (80°C.). At elevated temperatures, the maximum wheel speed must be derated per the high temperature deration factors on page 4. In some cases, the derated maximum wheel speed may be lower than the maximum safe shaft speed for shaft overhang "R". In those cases, the lower of the two speeds prevails.
- ④ For aluminum wheels up to 200°F. (93°C.). All aluminum wheels are HDBI type, Class IV construction.

TEMPERATURE - ALTITUDE CONVERSIONS

AIR TEMP. F°	ALTITUDE IN FEET ABOVE SEA LEVEL										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
0°	.87	.91	.94	.98	1.01	1.05	1.09	1.13	1.17	1.22	1.26
40°	.94	.98	1.02	1.06	1.10	1.14	1.19	1.23	1.28	1.32	1.36
70°	1.00	1.04	1.08	1.12	1.16	1.20	1.25	1.30	1.35	1.40	1.45
80°	1.02	1.06	1.10	1.14	1.19	1.23	1.28	1.33	1.38	1.43	1.48
100°	1.06	1.10	1.14	1.19	1.23	1.28	1.33	1.38	1.43	1.48	1.54
120°	1.09	1.14	1.18	1.23	1.28	1.32	1.38	1.43	1.48	1.53	1.58
140°	1.13	1.18	1.22	1.27	1.32	1.37	1.42	1.48	1.54	1.58	1.65
160°	1.17	1.22	1.26	1.31	1.36	1.42	1.47	1.53	1.59	1.64	1.70
180°	1.21	1.26	1.30	1.36	1.41	1.46	1.52	1.58	1.64	1.70	1.75
200°	1.25	1.29	1.34	1.40	1.45	1.51	1.57	1.63	1.69	1.75	1.81
250°	1.34	1.39	1.45	1.50	1.56	1.62	1.68	1.74	1.82	1.88	1.94
300°	1.43	1.49	1.55	1.61	1.67	1.74	1.80	1.87	1.94	2.00	2.08
350°	1.53	1.59	1.65	1.72	1.78	1.85	1.92	2.00	2.07	2.14	2.22
400°	1.62	1.69	1.75	1.82	1.89	1.96	2.04	2.12	2.20	2.27	2.35
450°	1.72	1.79	1.86	1.93	2.00	2.08	2.16	2.24	2.33	2.41	2.50
500°	1.81	1.88	1.96	2.03	2.11	2.19	2.28	2.36	2.46	2.54	2.62
550°	1.91	1.98	2.06	2.14	2.22	2.30	2.40	2.49	2.58	2.68	2.77
600°	2.00	2.08	2.16	2.24	2.33	2.42	2.50	2.61	2.71	2.80	2.90
650°	2.10	2.18	2.26	2.35	2.44	2.54	2.63	2.74	2.84	2.94	3.04
700°	2.19	2.27	2.36	2.46	2.55	2.65	2.75	2.86	2.97	3.06	3.18
750°	2.28	2.37	2.47	2.56	2.66	2.76	2.87	2.98	3.10	3.19	3.31
800°	2.38	2.48	2.57	2.66	2.76	2.86	2.98	3.10	3.21	3.33	3.45

Fan performance tables are developed using standard air which is 70°F., 29.92" barometric pressure and .075 lbs. per cubic foot. Density changes resulting from temperature or barometric pressure variations (such as higher altitudes) must be corrected to standard conditions before selecting a fan based on standard performance data. Temperature and/or altitude conversion factors are used in making corrections to standard conditions.

EXAMPLE:

Select a belt driven CPF-150 to deliver 4500 CFM at .50" SP at 200°F., and 7000' altitude.

STEP 1. From the table, conversion factor is 1.63.

STEP 2. Correct static pressure is:
1.63 x .50" SP = .81" SP at standard conditions.

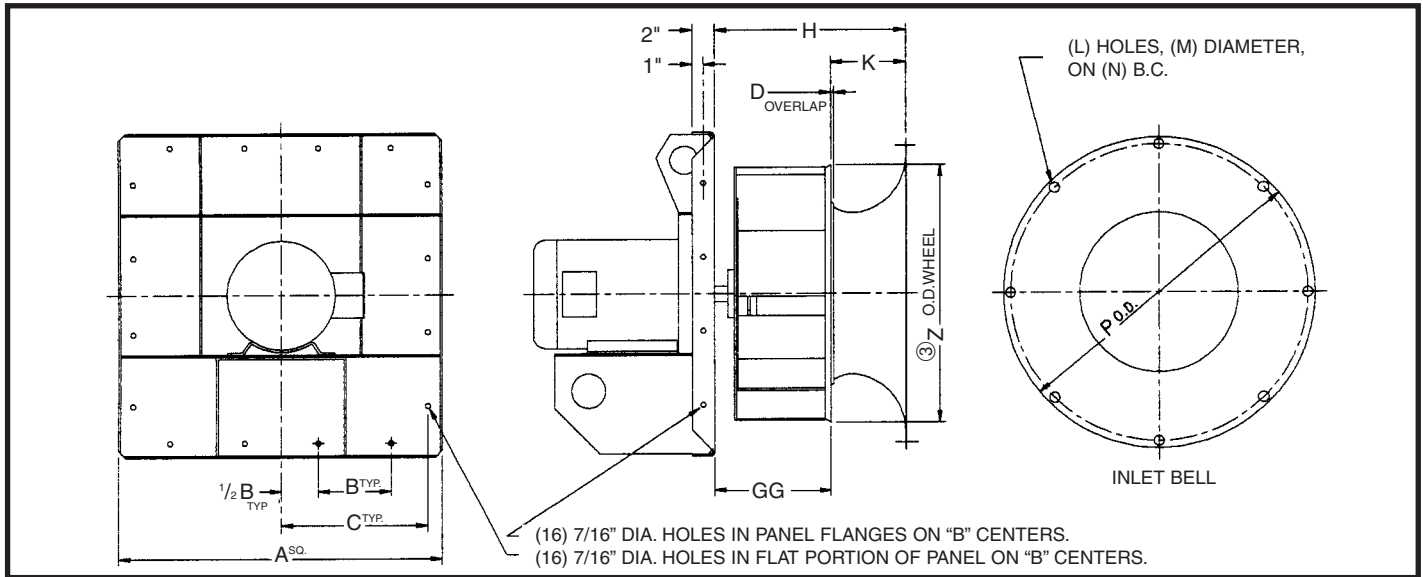
STEP 3. Check CPF catalog for 4500 CFM at .81" SP. We select a belt driven CPF-150 and interpolation gives 2650 RPM and 3.15 BHP.

STEP 4. Correct the BHP for the lighter air:
3.15 ÷ 1.63 = 1.93 BHP. A 2 HP motor will suffice at 200°F., and 7000' but not at standard conditions. Special motor insulation may be required due to altitude.



DIMENSIONS and SPECIFICATIONS

Arrangement #4, Direct Drive ①



① **MAXIMUM OPERATING TEMPERATURE IS 200°F.**

② Standard machine tool gray paint.

③ Customer installation of fan assembly requires an opening larger than the wheel shroud O.D., reference dimension "Z".

DIMENSIONS IN INCHES ± 1/8"

MODEL	MOTOR FRAME	A	TYP. B	TYP. C	D	GG	H	K	L	M	N	P	Z
CPF-120	143T-184T	22	5	9 ³ / ₄	1/8	5 ¹¹ / ₁₆	9 ³ / ₈	3 ¹¹ / ₁₆	8	1 ¹ / ₁₆	14 ³ / ₈	15 ³ / ₈	12 ⁵ / ₈
CPF-130	143T-215T	22	5	9 ³ / ₄	1/8	6 ¹¹ / ₃₂	10 ³ / ₈	4 ¹ / ₃₂	8	1 ¹ / ₁₆	15 ¹⁵ / ₁₆	17	13 ⁷ / ₈
CPF-150	143T-215T	22	5	9 ³ / ₄	5/16	7 ¹ / ₃₂	11 ³ / ₈	4 ¹⁵ / ₃₂	8	3/4	17 ¹ / ₂	18 ⁵ / ₈	15 ³ / ₈
CPF-160	143T-256T	22	5	9 ³ / ₄	5/16	7 ¹¹ / ₁₆	12 ¹ / ₂	4 ¹⁵ / ₁₆	8	3/4	19 ³ / ₈	20 ¹ / ₂	16 ⁷ / ₈
CPF-180	143T-324T	28 ¹ / ₂	6 ¹ / ₂	13	5/16	8 ¹⁷ / ₃₂	13 ⁷ / ₈	5 ¹⁵ / ₃₂	8	3/4	21 ¹ / ₂	22 ⁵ / ₈	18 ¹¹ / ₁₆
CPF-200	182T-364TS	28 ¹ / ₂	6 ¹ / ₂	13	5/16	9 ⁹ / ₃₂	15 ¹ / ₄	6 ¹ / ₃₂	8	7/8	23 ¹ / ₂	24 ³ / ₄	20 ¹ / ₂
CPF-220	182T-324T	28 ¹ / ₂	6 ¹ / ₂	13	5/16	10 ¹ / ₄	16 ⁷ / ₈	6 ¹¹ / ₁₆	8	7/8	26 ¹ / ₈	27 ³ / ₈	22 ¹³ / ₁₆
CPF-240	213T-286T	38	9	17 ³ / ₄	3/8	11 ⁹ / ₃₂	18 ⁹ / ₁₆	7 ¹¹ / ₃₂	16	7/8	28 ³ / ₄	30	25
CPF-270	213T-286T	38	9	17 ³ / ₄	7/16	12 ¹³ / ₃₂	20 ⁷ / ₁₆	8 ³ / ₃₂	16	1	31 ⁵ / ₈	33	27 ⁵ / ₈
CPF-300	213T-324T	38	9	17 ³ / ₄	1/2	13 ⁷ / ₈	22 ³ / ₄	9	16	1	35 ¹ / ₄	36 ⁵ / ₈	30 ³ / ₄

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

CONSTRUCTION GAUGES

Size	Panel and Base	Inlet Bell	WHEEL			
			Shroud	Blades	Back Plate	Reinf. Plate
120	7	16	12	10	7	10
130	7	16	12	10	7	10
150	7	16	12	10	7	10
160	7	16	12	10	7	10
180	7	16	12	7 or 10	7	10
200	7	16	12	7	7	10
220	7	16	12	7	7	10
240	7	14	11	7	7	10
270	7	14	11	7	1/4"	1/4"
300	7*	14	11	7	1/4"	1/4"

* 1/4" for 324T frame motors.

APPROXIMATE SHIPPING WEIGHTS LESS MOTOR

Size	Arrangement #4		Arrangement #9		Standard Insulation Plug Box [▲]
	Class II	Class III	Class II	Class III	
120	106	106	289	289	31
130	111	111	293	298	31
150	117	117	299	303	31
160	124	128	302	308	31
180	172	177	450	466	44
200	182	188	462	469	44
220	198	205	475	481	44
240	337	344	601	607	70
270	351	394	621	652	70
300	389	416	656	672	70

[▲] Insulation material not included.

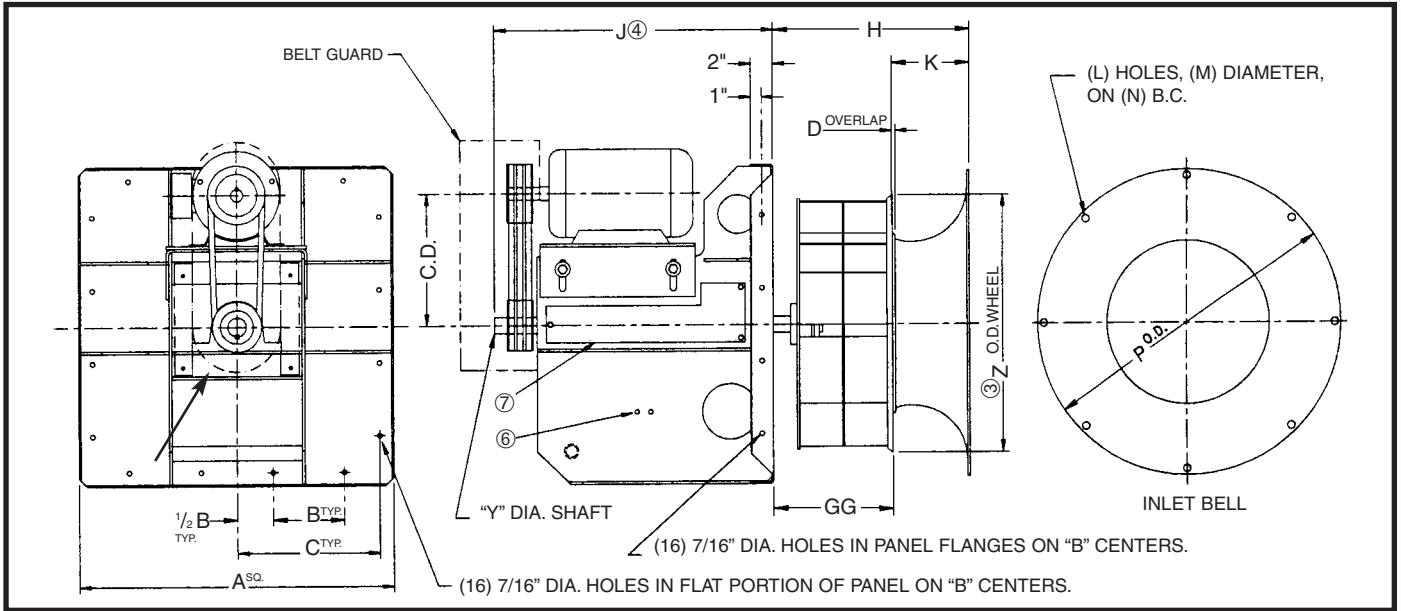
NOTE: There are construction classes for standard plug fans without extended shafts (i.e., Class II and III). There are no construction classes for plug fans with extended shafts.



DIMENSIONS and SPECIFICATIONS

Arrangement #9, Belt Drive For: Standard construction or 301°- 450° F.

construction, both without extended shaft. ①



- ① Maximum temperature for standard construction is 300°F. For 301° to 450°F construction, see Note ⑤.
- ② Standard machine tool gray paint, see Note ⑤.
- ③ Customer installation of fan assembly requires an opening larger than the wheel shroud O.D., reference dimension "Z".

- ④ "J" dimension shown is for 56 to 215T frame motors. Add: 6" for 254T to 286T frame motors. 8" for 324T frame motors.

- ⑤ Includes heat slinger, teflon shaft seal and high temperature aluminum paint on 301°-450°F construction only.

- ⑥ Extended lube lines.

- ⑦ Bearing access cover (Expanded metal construction).

DIMENSIONS IN INCHES ± 1/8"

MODEL	MOTOR FRAME	A	TYP. B	TYP. C	D	GG	H	J	Y		Z
									CL.II	CL.III	
CPF-120	56-215T	22	5	9 ^{3/4}	1/8	5 ^{11/16}	9 ^{3/8}	25	1 ^{3/16}	1 ^{3/16}	12 ^{5/8}
CPF-130	56-215T	22	5	9 ^{3/4}	1/8	6 ^{11/32}	10 ^{3/8}	25	1 ^{3/16}	1 ^{7/16}	13 ^{7/8}
CPF-150	56-215T	22	5	9 ^{3/4}	5/16	7 ^{1/32}	11 ^{3/8}	25	1 ^{7/16}	1 ^{11/16}	15 ^{3/8}
CPF-160	56-215T	22	5	9 ^{3/4}	5/16	7 ^{11/16}	12 ^{1/2}	25	1 ^{7/16}	1 ^{11/16}	16 ^{7/8}
CPF-180	56-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	8 ^{17/32}	13 ^{7/8}	25	1 ^{7/16}	1 ^{11/16}	18 ^{11/16}
CPF-200	143T-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	9 ^{9/32}	15 ^{1/4}	25	1 ^{7/16}	1 ^{15/16}	20 ^{1/2}
CPF-220	143T-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	10 ^{1/4}	16 ^{7/8}	26	1 ^{7/16}	1 ^{15/16}	22 ^{13/16}
CPF-240	143T-286T	38	9	17 ^{3/4}	3/8	11 ^{9/32}	18 ^{9/16}	27	1 ^{11/16}	2 ^{3/16}	25
CPF-270	143T-324T	38	9	17 ^{3/4}	7/16	12 ^{13/32}	20 ^{7/16}	27	1 ^{11/16}	2 ^{3/16}	27 ^{5/8}
CPF-300	143T-324T	38	9	17 ^{3/4}	1/2	13 ^{7/8}	22 ^{3/4}	27	1 ^{15/16}	2 ^{7/16}	30 ^{3/4}

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL	K	L	M	N	P
CPF-120	3 ^{11/16}	8	1 ^{1/16}	14 ^{3/8}	15 ^{3/8}
CPF-130	4 ^{1/32}	8	1 ^{1/16}	15 ^{15/16}	17
CPF-150	4 ^{15/32}	8	3/4	17 ^{1/2}	18 ^{5/8}
CPF-160	4 ^{15/16}	8	3/4	19 ^{3/8}	20 ^{1/2}
CPF-180	5 ^{15/32}	8	3/4	21 ^{1/2}	22 ^{5/8}
CPF-200	6 ^{1/32}	8	7/8	23 ^{1/2}	24 ^{3/4}
CPF-220	6 ^{11/16}	8	7/8	26 ^{1/8}	27 ^{3/8}
CPF-240	7 ^{11/32}	16	7/8	28 ^{3/4}	30
CPF-270	8 ^{3/32}	16	1	31 ^{5/8}	33
CPF-300	9	16	1	35 ^{1/4}	36 ^{5/8}

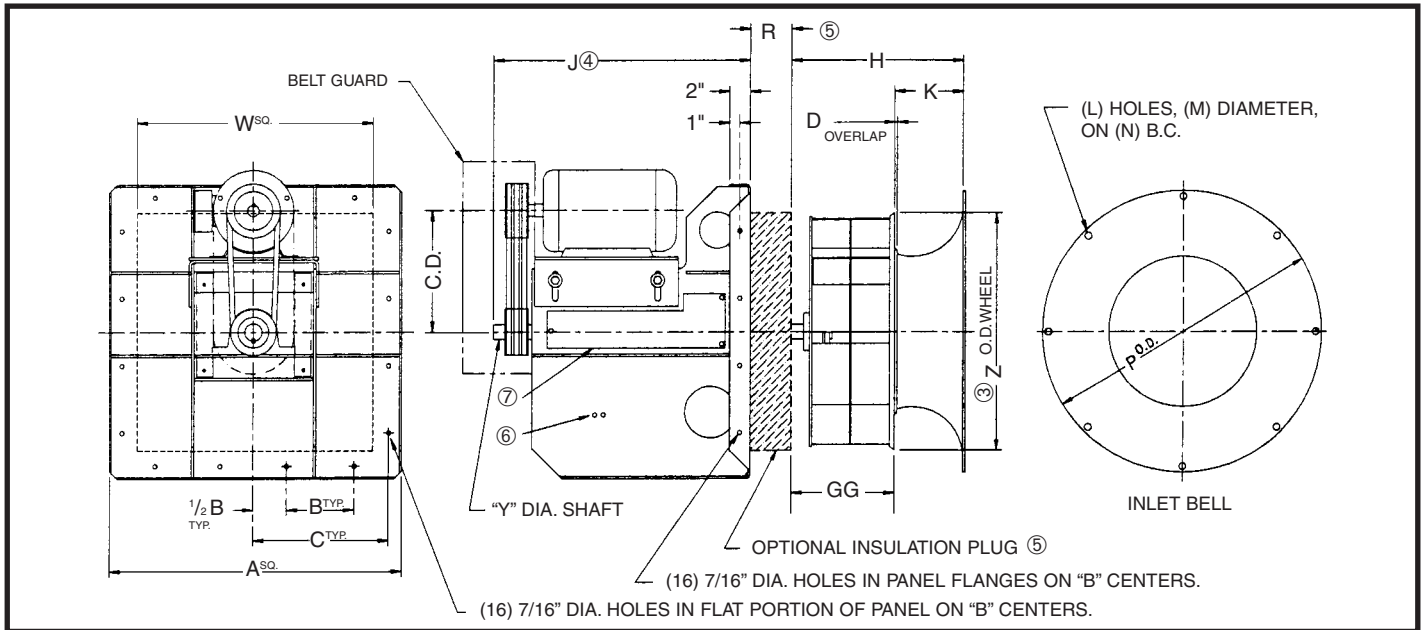
MOTOR FRAME	Center Distance	
	Min.	Max.
56 to 145T	10 ^{3/4}	12 ^{1/4}
182T 184T	11 ^{3/4}	13 ^{1/4}
213T 215T	12 ^{1/2}	14
254T 256T	16 ^{1/2}	18 ^{5/8}
284T 286T	17 ^{1/4}	19 ^{3/8}
324T	18 ^{1/4}	20



DIMENSIONS and SPECIFICATIONS

Arrangement #9, Belt Drive For: (A) 451° - 800° F. construction. ①

(B) Standard temperature or 301° - 450° construction, both with extended shaft.②



- ① Temperature range 451° to 800°F. includes heat slinger, ceramic fiber shaft seal, high temperature aluminum paint and high temperature bearings.
- ② Standard construction up to 300°F. is painted machine tool gray. 301°F. to 450°F. construction includes heat slinger, teflon shaft seal and high temperature aluminum paint.
- ③ Installation of fan assembly requires an opening larger than the wheel shroud O.D., reference dimension "Z".

- ④ "J" dimension shown is for 56 to 215T frame motors. Add: 6" for 254T to 286T frame motors. 8" for 324T frame motors.
- ⑤ Optional **additional** shaft length "R":
 2" 3" 4" 5" 6"
 With plug and insulation by CFV
- ⑥ Extended lube lines.
- ⑦ Bearing access cover (Expanded metal construction).

DIMENSIONS IN INCHES ± 1/8"

MODEL	MOTOR FRAME	A	TYP. B	TYP. C	D	GG	H	J	Y	Z
CPF-120	56-215T	22	5	9 ^{3/4}	1/8	5 ^{11/16}	9 ^{3/8}	25	1 ^{15/16}	12 ^{5/8}
CPF-130	56-215T	22	5	9 ^{3/4}	1/8	6 ^{11/32}	10 ^{3/8}	25		13 ^{7/8}
CPF-150	56-215T	22	5	9 ^{3/4}	5/16	7 ^{1/32}	11 ^{3/8}	25		15 ^{3/8}
CPF-160	56-215T	22	5	9 ^{3/4}	5/16	7 ^{11/16}	12 ^{1/2}	25		16 ^{7/8}
CPF-180	56-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	8 ^{17/32}	13 ^{7/8}	25 ^④	2 ^{3/16}	18 ^{11/16}
CPF-200	143T-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	9 ^{9/32}	15 ^{1/4}	25 ^④		20 ^{1/2}
CPF-220	143T-286T	28 ^{1/2}	6 ^{1/2}	13	5/16	10 ^{1/4}	16 ^{7/8}	26 ^④		22 ^{13/16}
CPF-240	143T-286T	38	9	17 ^{3/4}	3/8	11 ^{9/32}	18 ^{9/16}	27 ^④	2 ^{7/16}	25
CPF-270	143T-324T	38	9	17 ^{3/4}	7/16	12 ^{13/32}	20 ^{7/16}	27 ^④		27 ^{5/8}
CPF-300	143T-324T	38	9	17 ^{3/4}	1/2	13 ^{7/8}	22 ^{3/4}	27 ^④		30 ^{3/4}

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

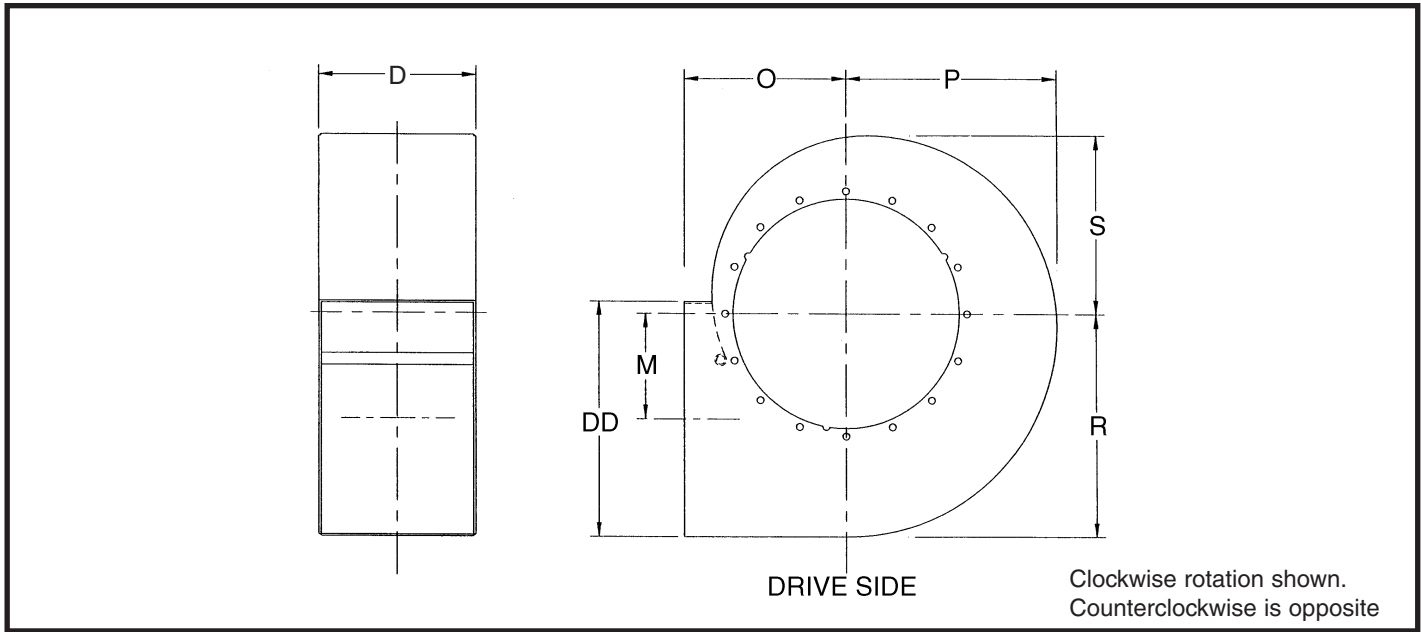
MODEL	K	L	M	N	P	W
CPF-120	3 ^{11/16}	8	1 ^{1/16}	14 ^{3/8}	15 ^{3/8}	17
CPF-130	4 ^{1/32}	8	1 ^{1/16}	15 ^{15/16}	17	
CPF-150	4 ^{15/32}	8	3/4	17 ^{1/2}	18 ^{5/8}	
CPF-160	4 ^{15/16}	8	3/4	19 ^{3/8}	20 ^{1/2}	
CPF-180	5 ^{15/32}	8	3/4	21 ^{1/2}	22 ^{5/8}	23
CPF-200	6 ^{1/32}	8	7/8	23 ^{1/2}	24 ^{3/4}	
CPF-220	6 ^{11/16}	8	7/8	26 ^{1/8}	27 ^{3/8}	
CPF-240	7 ^{11/32}	16	7/8	28 ^{3/4}	30	32
CPF-270	8 ^{3/32}	16	1	31 ^{5/8}	33	
CPF-300	9	16	1	35 ^{1/4}	36 ^{5/8}	

MOTOR FRAME	Center Distance	
	Min.	Max.
56 to 145T	10 ^{3/4}	12 ^{1/4}
182T 184T	11 ^{3/4}	13 ^{1/4}
213T 215T	12 ^{1/2}	14
254T 256T	16 ^{1/2}	18 ^{5/8}
284T 286T	17 ^{1/4}	19 ^{3/8}
324T	18 ^{1/4}	20



DIMENSIONS and SPECIFICATIONS

Optional Housing Dimensions

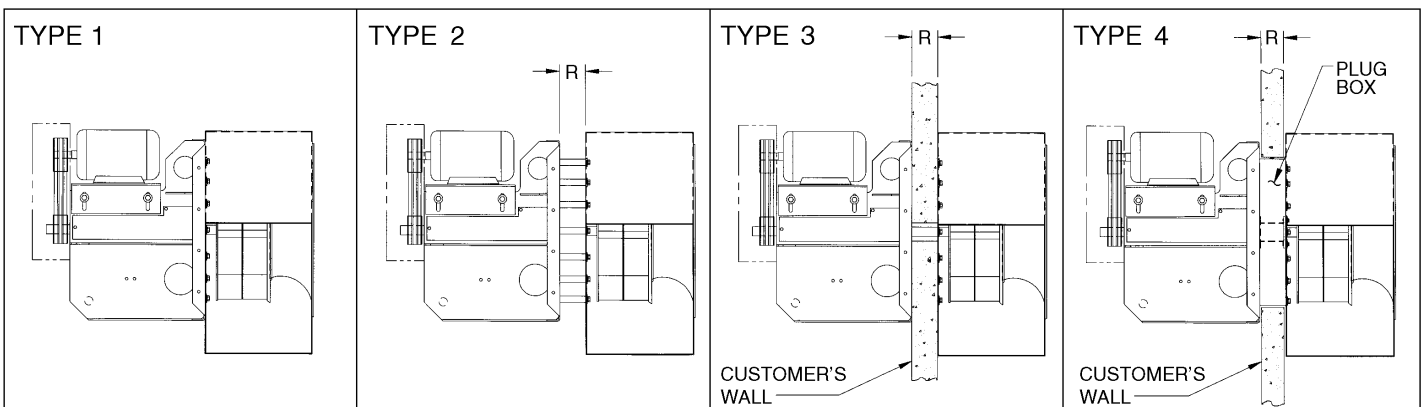


DIMENSIONS IN INCHES ± 1/8"

MODEL	D	M	O	P	R	S	DD
CPF-120	9 ^{3/8}	6 ^{3/16}	9 ^{15/16}	12 ^{3/8}	13	10 ^{3/8}	13 ^{3/4}
CPF-130	10 ^{3/8}	6 ^{13/16}	10 ^{13/16}	13 ^{3/4}	14 ^{7/16}	11 ^{9/16}	15 ^{1/4}
CPF-150	11 ^{3/8}	7 ^{9/16}	11 ^{3/4}	15 ^{3/16}	15 ^{15/16}	12 ^{3/4}	16 ^{13/16}
CPF-160	12 ^{1/2}	8 ^{5/16}	12 ^{11/16}	16 ^{11/16}	17 ^{1/2}	14	18 ^{7/16}
CPF-180	13 ^{7/8}	9 ^{1/4}	13 ^{13/16}	18 ^{7/16}	19 ^{7/16}	15 ^{1/2}	20 ^{3/8}
CPF-200	15 ^{1/4}	10 ^{1/16}	14 ^{15/16}	20 ^{1/4}	21 ^{1/4}	17	22 ^{3/8}
CPF-220	16 ^{7/8}	11 ^{3/16}	16 ^{3/8}	22 ^{1/2}	23 ^{5/8}	18 ^{7/8}	24 ^{7/8}
CPF-240	18 ^{9/16}	12 ^{5/16}	18 ^{13/16}	24 ^{3/4}	26	20 ^{3/4}	27 ^{3/8}
CPF-270	20 ^{7/16}	13 ^{9/16}	20 ^{7/16}	27 ^{1/4}	28 ^{5/8}	22 ^{7/8}	30 ^{1/16}
CPF-300	22 ^{3/4}	15 ^{1/8}	22 ^{7/16}	30 ^{3/8}	31 ^{7/8}	25 ^{1/2}	33 ^{9/16}

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Housing Mounting Types



TYPE 1: Housing bolts directly to plug fan front plate. Hardware supplied by CF.

Arrangement 4 or 9.

TYPE 2: Housing bolts through spacers to plug fan front plate. Specify the "R" dimension for the spacers on your order per note 5 on page 22. Hardware supplied by CF.

Arrangement 9 only.

TYPE 3: Housing bolts through customer's wall into plug fan front plate. Specify "R" dimension for customer's wall, on your order, per note 5 on page 22. Hardware supplied by customer.

Arrangement 9 only.

TYPE 4: Housing bolts to front of plug box. Specify "R" dimension for plug box, on your order, per note 5 on page 22. Hardware supplied by CF.

Arrangement 9 only.