



Bulletin IDF11



MAKE-UP AIR

Model: IDF
High Capacity,
Indirect-Fired,
Make-Up Air Units

› **IDF Series**
Model: IDF
 75 - 1,200 MBH Capacity
 600 - 14,800 CFM Capacity



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› **Listings and Certifications**

PennBarry IDF Make-Up Air units are ETL listed for the furnace assembly only.



ETL certified duct furnace section to UL 1995/ CSA C22.2 No. 236 “Heating and Cooling Equipment” and UL 795 “Commercial - Industrial Gas Heating Equipment” for electrical and mechanical safety.

PennBarry IDF Make-Up Air units are also certified by the Canadian Standard Association.



C.S.A. (Canadian Standards Association) design certification for use in both the US and Canada to the ANSI Z83.8 - latest revision, standard for “Gas Unit Heater and Gas-Fired Duct Furnaces” for safe operation, construction, and performance.

PennBarry reserves the right to make changes at any time, without notice, to models, construction, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication. To view the latest updates, visit PennBarry at www.pennbarry.com.

Features

Make-Up Air



IDF

› Value-Driven Make-Up Air Systems

Indirect-fired technologies meet specific customer preferences and are common choices for many commercial, institutional and industrial applications in which the higher capacities, displacement ventilation and fuel efficiency of direct-fired systems are not required.

PennBarry's IDF Series indirect-fired heating and ventilating systems are available in horizontal models for either indoor or outdoor installation. Like most indirect-fired systems, these units are 80% energy efficient and use advanced heat exchangers in the furnace section to provide building supply air at set temperatures. Depending on the application, these systems may be gravity vented or power-vented for exhausting combustion gases to the outdoors.

Many of the same design features found on PennBarry direct-fired units can be found on our indirect-fired units. These include motorized inlet dampers, easy-to-service filters, long-life motor and fan combinations, single-point gas and electrical connections, ETL/CSA certifications, advanced control systems and much more.

PennBarry's IDF Series indirect-fired heating and ventilating systems are available with heating capacities from 75 to 1,200 MBH input and airflow capacities from 600 to 14,800 CFM.

PennBarry is committed to providing the best available value in its IDF indirect-fired heating and ventilating systems. This includes emphasizing durable construction and reliable operation in the range of standard features. It also includes offering a wide choice of optional features and accessories for meeting precise application requirements.

› Standard Features

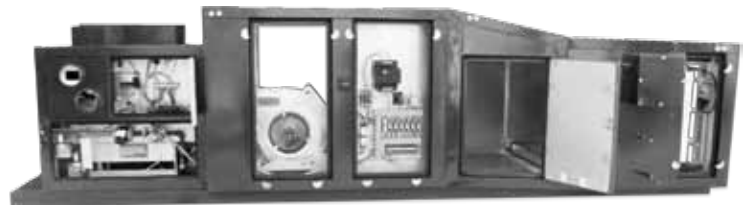
- Indoor & Outdoor Designs
- Durable Horizontal Cabinets
- Choice of Discharge Configurations
- Weather-Resistant, Heavy-Gauge Aluminized Steel Construction
- Fan & Motor Vibration Isolation
- Aluminized Steel Heat Exchanger & Burner
- Combination Combustion Air/Exhaust Vent Cap
- Durable Two-Coat Paint Finish (Owner-Matched Colors at No Extra Cost)
- Fan Bearings rated to a Minimum of 100,000 Hours (L-10 Life)
- 100% Factory Testing
- Two-Year Parts & 90-Day Labor Limited Warranty

› Optional Features & Accessories

- Power Exhaust
- Stainless Steel Heat Exchanger, Burner and/or Drip Pan
- Exhaust Vent Extensions (Indoor Models)
- Separated Combustion (Indoor Models)
- Inlet Hood or Louvered Inlet Plenum
- Insulated Cabinet (Not Including Duct Furnace Section)
- Multiple Filtering Choices
- Motorized Inlet or Discharge Dampers
- Full or Duct Curb, Flat or Pitched
- Vibration Isolation (Internal or External)
- Motor Belt Guards
- Service Platforms (OSHA Compliant)
- Three and Four-Way Discharge Diffusers
- 100% OA, 100% RA, Fixed OA/RA or Modulating OA/RA
- Cooling Options (Evaporative or DX/CW Coils)



Gravity Vented, Outdoor Unit



Power Vented, Separated Combustion, Indoor Unit

> IDF Sizing

Blower/ Motor Cabinet	Furnace Qty.	Furnace Size Used	BTU/Hr Input	BTU/Hr Output	Unit CFM @ Temperature Rise Through Unit (°F)								
					20	25	30	35	40	45	50	55	60
IDF075	1	075	75,000	60,000	2,778	2,222	1,852	1,587	1,389	1,235	1,111	1,010	926
IDF100	1	100	100,000	80,000	3,704	2,963	2,469	2,116	1,852	1,646	1,481	1,347	1,235
IDF125	1	125	125,000	100,000	4,630	3,704	3,086	2,646	2,315	2,058	1,852	1,684	1,543
IDF150	1	150	150,000	120,000	5,556	4,444	3,704	3,175	2,778	2,469	2,222	2,020	1,852
IDF175	1	175	175,000	140,000	6,481	5,185	4,321	3,704	3,241	2,881	2,593	2,357	2,160
IDF200	1	200	200,000	160,000	7,407	5,926	4,938	4,233	3,704	3,292	2,963	2,694	2,469
IDF225	1	225	225,000	180,000	8,333	6,667	5,556	4,762	4,167	3,704	3,333	3,030	2,778
IDF450	2	225	450,000	360,000	N/A	N/A	N/A	N/A	8,333	7,407	6,667	6,061	5,556
IDF250	1	250	250,000	200,000	9,259	7,407	6,173	5,291	4,630	4,115	3,704	3,367	3,086
IDF300	1	300	300,000	240,000	11,111	8,889	7,407	6,349	5,556	4,938	4,444	4,040	3,704
IDF500	2	250	500,000	400,000	N/A	N/A	N/A	N/A	9,259	8,230	7,407	6,734	6,173
IDF600	2	300	600,000	480,000	N/A	N/A	N/A	N/A	11,111	9,877	8,889	8,081	7,407
IDF350	1	350	350,000	280,000	12,963	10,370	8,642	7,407	6,481	5,761	5,185	4,714	4,321
IDF400	1	400	400,000	320,000	14,815	11,852	9,877	8,466	7,407	6,584	5,926	5,387	4,938
IDF700	2	350	700,000	560,000	N/A	N/A	N/A	N/A	12,963	11,523	10,370	9,428	8,642
IDF800	2	400	800,000	640,000	N/A	N/A	N/A	N/A	14,815	13,169	11,852	10,774	9,877

Blower/ Motor Cabinet	Furnace Qty.	Furnace Size Used	BTU/Hr Input	BTU/Hr Output	Unit CFM @ Temperature Rise Through Unit (°F)								
					60	65	70	75	80	85	90	95	100
IDF075	1	075	75,000	60,000	926	855	794	741	694	654	617	585	556
IDF100	1	100	100,000	80,000	1,235	1,140	1,058	988	926	871	823	780	741
IDF125	1	125	125,000	100,000	1,543	1,425	1,323	1,235	1,157	1,089	1,029	975	926
IDF150	1	150	150,000	120,000	1,852	1,709	1,587	1,481	1,389	1,307	1,235	1,170	1,111
IDF175	1	175	175,000	140,000	2,160	1,994	1,852	1,728	1,620	1,525	1,440	1,365	1,296
IDF200	1	200	200,000	160,000	2,469	2,279	2,116	1,975	1,852	1,743	1,646	1,559	1,481
IDF225	1	225	225,000	180,000	2,778	2,564	2,381	2,222	2,083	1,961	1,852	1,754	1,667
IDF450	2	225	450,000	360,000	5,556	5,128	4,762	4,444	4,167	3,922	3,704	3,509	3,333
IDF250	1	250	250,000	200,000	3,086	2,849	2,646	2,469	2,315	2,179	2,058	1,949	1,852
IDF300	1	300	300,000	240,000	3,704	3,419	3,175	2,963	2,778	2,614	2,469	2,339	2,222
IDF500	2	250	500,000	400,000	6,173	5,698	5,291	4,938	4,630	4,357	4,115	3,899	3,704
IDF600	2	300	600,000	480,000	7,407	6,838	6,349	5,926	5,556	5,229	4,938	4,678	4,444
IDF750	3	250	750,000	600,000	9,259	8,547	7,937	7,407	6,944	6,536	6,173	5,848	5,556
IDF900	3	300	900,000	720,000	11,111	10,256	9,524	8,889	8,333	7,843	7,407	7,018	6,667
IDF350	1	350	350,000	280,000	4,321	3,989	3,704	3,457	3,241	3,050	2,881	2,729	2,593
IDF400	1	400	400,000	320,000	4,938	4,558	4,233	3,951	3,704	3,486	3,292	3,119	2,963
IDF700	2	350	700,000	560,000	8,642	7,977	7,407	6,914	6,481	6,100	5,761	5,458	5,185
IDF800	2	400	800,000	640,000	9,877	9,117	8,466	7,901	7,407	6,972	6,584	6,238	5,926
IDF1050	3	350	1,050,000	840,000	12,963	11,966	11,111	10,370	9,722	9,150	8,642	8,187	7,778
IDF1200	3	400	1,200,000	960,000	14,815	13,675	12,698	11,852	11,111	10,458	9,877	9,357	8,889

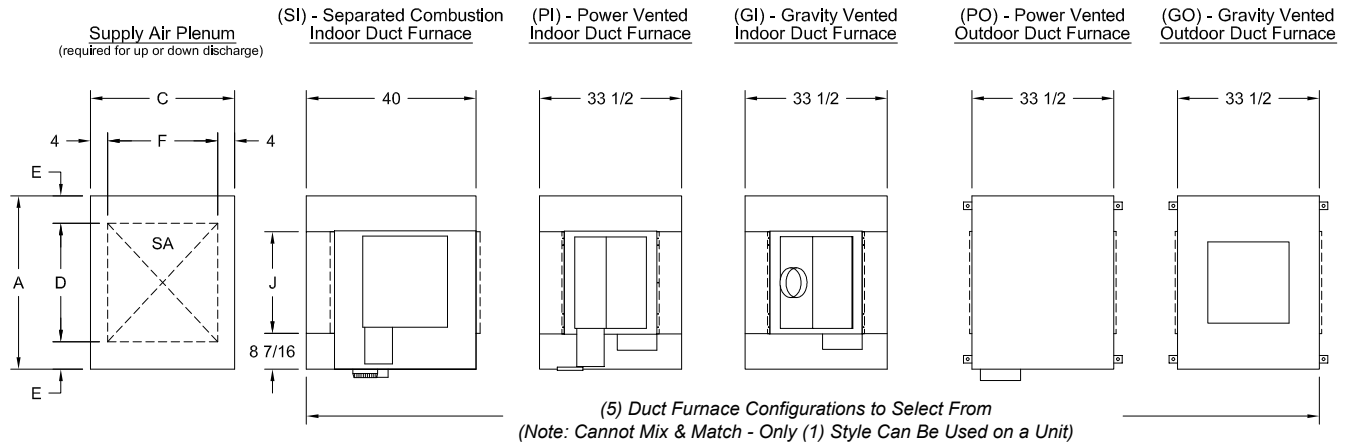
Dimensional Data for Base Unit

Make-Up Air

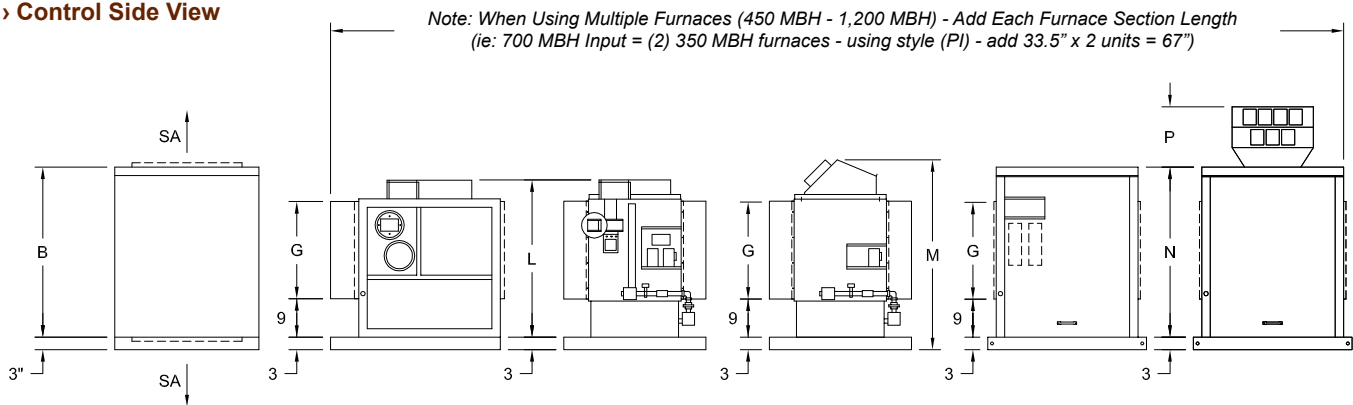


IDF

> Plan View



> Control Side View

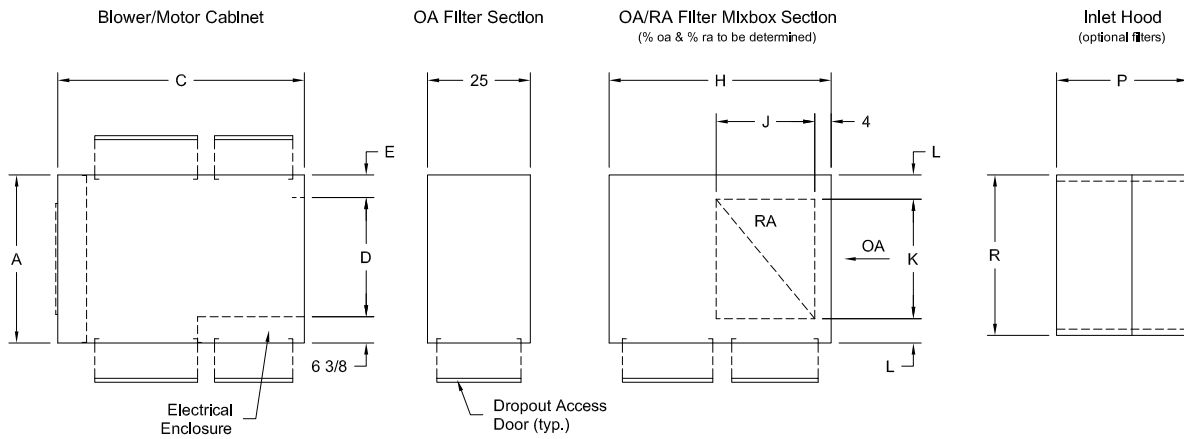


> Dimensional Data

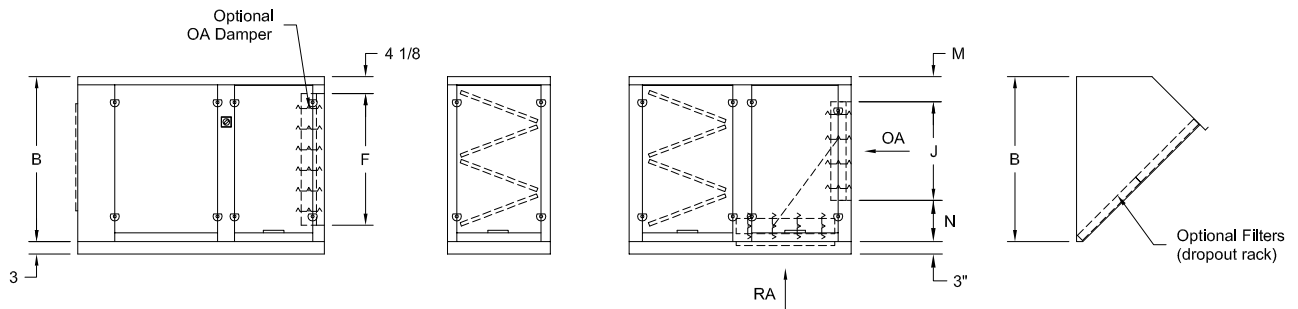
Blower/ Motor Cabinet	Gas Pipe Size	Dimensions in Inches											
		A	B	C	D	E	F	G	J	L	M	N	P
IDF075	1/2"	32	36 1/8	28	20	6	20	19	15 1/4	33 1/16	37 3/4	36 1/8	14 1/4
IDF100	1/2"	34 1/2	36 1/8	28	22	6 1/4	20	19	17 3/4	33 1/16	37 3/4	36 1/8	14 1/4
IDF125													
IDF150	1/2"	38 3/4	36 1/8	28	26	6 3/8	20	19	22	33 1/16	37 3/4	36 1/8	14 1/4
IDF175													
IDF200	1/2"	40 7/8	40 1/8	34	28	6 7/16	26	23	24 1/8	37 1/16	41 3/4	40 1/8	14 1/4
IDF225													
IDF450													
IDF250													
IDF300	3/4"	43 7/8	40 1/8	34	31	6 7/16	26	23	27 1/8	37 1/16	41 3/4	40 1/8	15 1/8
IDF500													
IDF600													
IDF750													
IDF900													
IDF350													
IDF400	3/4"	55 3/8	40 1/8	34	42	6 11/16	26	23	38 5/8	37 1/16	41 3/4	40 1/8	18 3/8
IDF700													
IDF800													
IDF1050													
IDF1200													

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› Plan View



› Control Side View



› Dimensional Data

Blower/ Motor Cabinet	Dimensions in Inches													
	A	B	C	D	E	F	H	J	K	L	M	N	P	R
IDF075	32	36 1/8	48	21	4 5/8	28	48	18	20	6	9 1/8	9	32	28
IDF100	34 1/2	36 1/8	48	24	4 1/8	28	48	18	23	5 3/4	9 1/8	9	32	35
IDF125														
IDF150	38 3/4	36 1/8	54	28	4 3/8	28	50	20	27	5 7/8	8 1/8	8	56	35
IDF175														
IDF200	40 7/8	40 1/8	60	29	5 1/2	32	54	24	29	5 15/16	6 1/8	10	56	39
IDF225														
IDF400														
IDF250														
IDF300	43 7/8	40 1/8	60	32	5 1/2	32	58	28	32	5 15/16	4 1/8	8	76	43
IDF500														
IDF600														
IDF750														
IDF900														
IDF350	55 3/8	40 1/8	66	44	5	32	58	28	43	6 3/16	4 1/8	8	76	53
IDF400														
IDF700														
IDF800														
IDF1050														
IDF1200														

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2-Year Limited Manufacturer Warranty

Make-Up Air



IDF

› Products Covered

PennBarry Fans and Ventilators (each, a “PennBarry Product”)

› Two Year Limited Warranty For Model IDF

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of two (2) years from the date of shipment.

› Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoice price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

› What You Must Do

In order to make a claim under these warranties:

- You must be the original commercial purchaser of the PennBarry Product.
- You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.
- The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

› Exclusions

These warranties do not cover defects caused by:

- Improper design or operation of the system into which the PennBarry Product is incorporated.
- Improper installation.
- Accident, abuse or misuse.
- Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
- Components not manufactured by PennBarry.

› Limitations

- In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
- PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
- PennBarry’s only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

› General

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Other PennBarry Products

Centrifugal Products



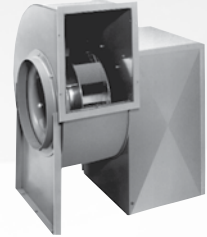
› **Domex**
Centrifugal
Roof Exhausters



› **Fumex**
Kitchen Hood Centrifugal
Roof Exhausters



› **Zephyr**
Ceiling and Inline Fans



› **Dynamo**
Centrifugal Blowers



› **Centrex Inliner**
Centrifugal Inline Fan



› **LC Dynafan**
Low Contour Centrifugal
Roof Exhausters

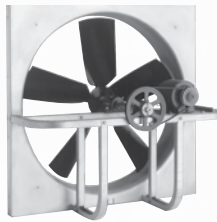


› **ESI**
Efficient Silent
Inline Fan



› **Fume Exhaust**
Curb Mounted
Centrifugal Fans

Axial | Gravity Products



› **Breezeway**
Propeller Wall Fan



› **Hi-Ex**
Power Roof Ventilator



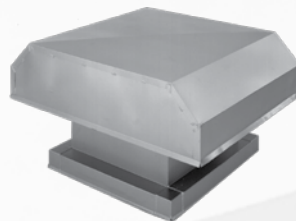
› **Tubeaxial**
Inline Fans



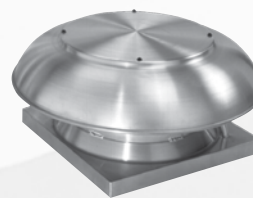
› **Vaneaxial**
Inline Fans



› **Powered Airette**
Axial Roof Ventilators



› **Airette**
Gravity Intake/Relief Hood



› **Domex Axial**
Axial Roof Ventilators



› **Axcentrix**
Bifurcator Fan



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For more information, contact your local PennBarry Sales Representative or visit us at www.PennBarry.com.

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