



**Bulletin HRV05**



## **HOODED ROOF VENTILATORS**

Models: HRD, HRR, HRB, HTB  
Direct Drive and Belt Drive

*MOVING YOUR WAY*

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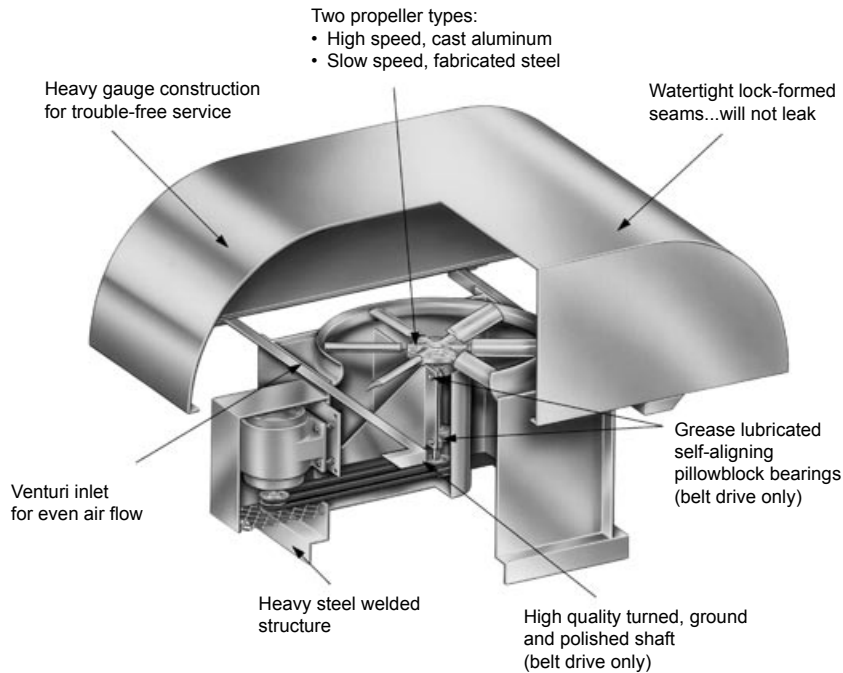
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Following publication of this catalog changes may have been made in standard equipment, options and the like that would not be included. We reserve the right to make changes at any time, without notice, to models, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication and we reserve the right to make changes in design and construction at anytime without notice. Your local sales representative is the best source for current information.

# General Information

## HRD/HRR/HRB/HTB - Hooded Roof Ventilators

**Hooded Roof Ventilators** move large volumes of air efficiently, quietly and with low discharge velocities. They combine venturi design with the latest developments in T-hood construction for long trouble-free service under difficult weather or outside vibration conditions. Watertight, overlapping seams and heavy gauge materials insure against leakage. PennBarry Hooded Roof Ventilators are designed for aerodynamic efficiency and employ a choice of two propeller types: high speed, cast aluminum and slow speed, fabricated steel. Available in direct drive and belt drive models, they serve supply, exhaust, reversible, gravity-vent and filtered air applications. Shafts for belt drive models are specially machined, turned, ground and polished, and mounted in relubricatable ball bearings to assure trouble-free service.



## Models

### HRD – Direct Drive

- Recommended when little or no foreign matter is present in airstream
- Combines low profile design with low maintenance advantages of direct drive system
- Prop diameters from 18" thru 72"

### HRB – Belt Drive

- Motor and drive in airstream
- Recommended for relatively clean air and moderate temperatures
- Enables use of standard speed motors at lower blade speeds
- Prop diameters from 24" thru 72"

### HRR – Belt Drive

- Motor and drive out of airstream
- Allows use of standard components with hot or dirty air
- Enables use of standard speed motors at lower blade speeds
- Prop diameters from 24" thru 72"

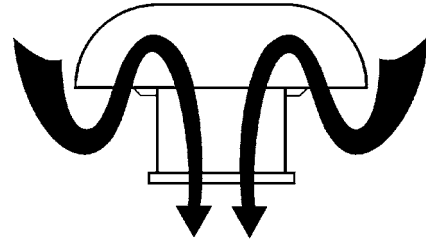
### HTB – Belt Drive, Large T-Hood

- Motor and drive in airstream
- Consult factory for reversible airflow or direct drive applications
- Available with 091 cast aluminum prop only
- Prop diameters from 84" thru 120"

### Wide Choice of Applications

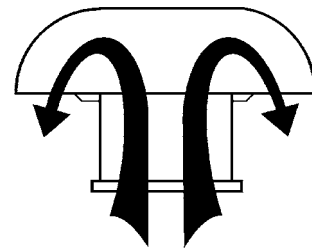
#### Air Supply Model

Air Supply models introduce air into the building for either general air makeup or to handle specific, localized conditions. They provide air intake to match exhaust requirements. The Filtered Air option combines a powered air supply with a filter equipped hood to provide clean air from an outside contaminated environment.



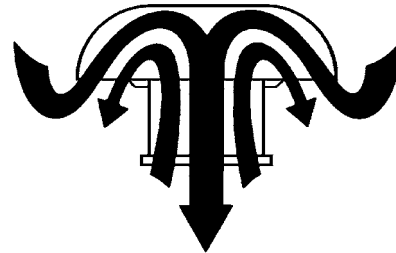
#### Power Exhaust Model

Power Exhaust models remove heat, moisture or contaminants, such as fumes, smoke and grease. They are applicable to meeting specific code requirements or simply recognized good engineering practice. Ideal for applications where the desired outlet velocity is too low for an upblast roof ventilator.



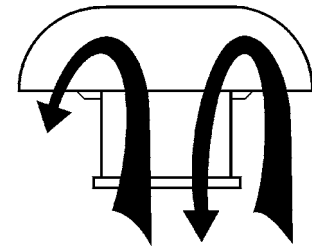
#### Reversible Air Flow Model

Reversible Air Flow models utilize a reversible propeller for equal air flow in both directions. They can act in either a supply or exhaust mode as conditions dictate. Not available with the 097 fabricated steel propeller.



#### Gravity Vent Model

Gravity Vent units are constructed similar to the standard Hooded Roof Ventilators except that no fan is provided. This unit is commonly used to vent hot air trapped beneath the roof, or to form the intake of an air supply system with the fan located in the duct system.

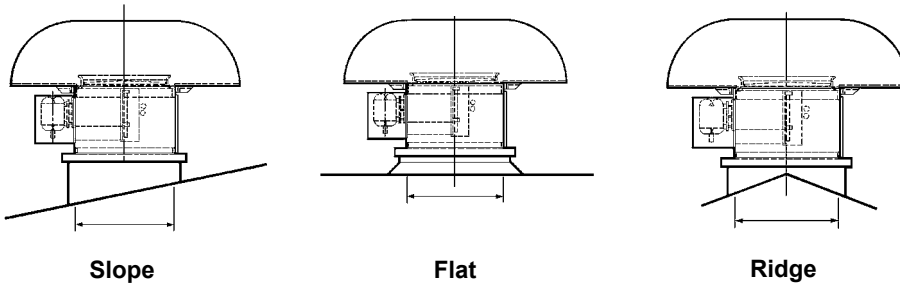


# Options and Accessories

## HRD/HRR/HRB/HTB - Hooded Roof Ventilators

### Insulated Roof Curbs

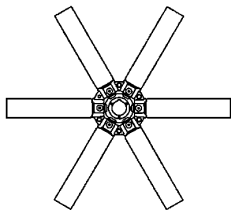
Insulated roof curbs are matched to the fan size. Roof curbs allow maximum ease of installation and insure proper fit. They are available for flat, sloped or ridge roof mounting. Please specify fan size, flat, sloped or ridge mounting and roof pitch when ordering.



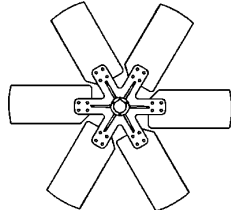
### Propeller Types

Two aerodynamically efficient propeller types are available:

- 6-blade cast aluminum (091)
- Fabricated slow speed steel (097)



091 - CAST ALUMINUM



097 - FABRICATED STEEL

### Filtered Hoods

Filtered hoods include filter racks, disposable filters, as well as a larger hood if required. Permanent cleanable filters are also available.

### Oversize Hoods

Oversize hoods lower the air intake or discharge velocity and adapt the next larger fan size hood to the fan size needed.

### Motor Operated Dampers

Motor operated dampers are center pivoted, parallel blade for either supply, exhaust or reversible flow. Dampers are arranged for power opening, spring closing unless otherwise specified.

### Walk-In Construction

Walk-in construction on Large T-Hood fans increases stack height, adds a full stack height door and access platform. Walk-in construction also allows maintenance personnel considerably more room and accessibility inside the unit.

### Extended Lubrication Lines

Extended lubrication lines to the outside of the fan housing permit relubrication of fan bearings from above the roof. Extended lube lines are standard on model HRR Hooded Roof Ventilators.

### Birdscreens

Standard birdscreens are 3/4" non-flattened expanded metal welded in place. An optional sheet metal frame, bolted in place and removable for access to the propeller is available.

### Backdraft Dampers

Backdraft dampers are gravity closing for exhaust and spring closed or counter balanced for supply. Dampers are not available for reversible flow units.

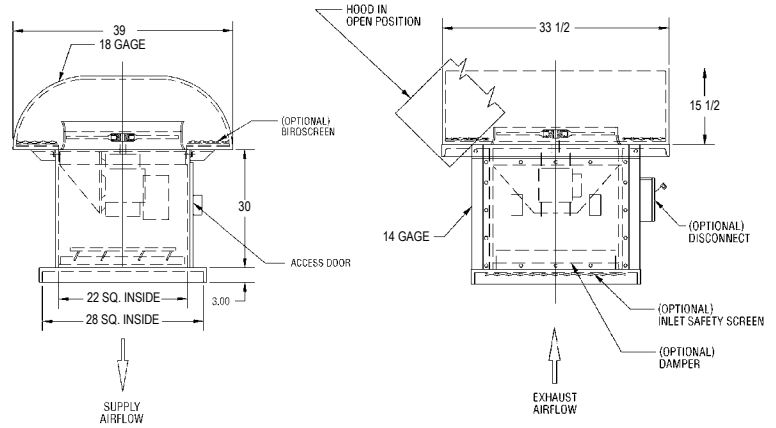
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 018

Prop Diameter = 18 in.	Fan Weight = 180 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 4.71 x RPM
Maximum Motor Frame Size = 184	
Inlet & Outlet Diameter (Area) = 18.19 in. (1.80 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
097*	1150	22	2827	0.18	2560	0.20	2183	0.21											
		28	3312	0.23	3004	0.25	2588	0.26											
	1750	22	4301	0.63	4136	0.65	3954	0.68	3748	0.71	3512	0.73	3210	0.74	2741	0.72			
		28	5040	0.81	4860	0.90	4644	0.90	4406	0.89	4143	0.92	3810	0.94	3333	0.95			

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	1644	0.04	1166	0.04												
		18	1918	0.04	1364	0.05												
		22	2268	0.06	1608	0.07												
		26	2445	0.07	1865	0.08												
		30	2772	0.10	2166	0.11												
	1750	14	2502	0.13	2225	0.14	1907	0.14										
		18	2919	0.15	2594	0.17	2217	0.18										
		22	3451	0.23	3056	0.24	2615	0.25										
		26	3721	0.26	3385	0.28	2990	0.29										
		30	4219	0.36	3849	0.38	3449	0.40										

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

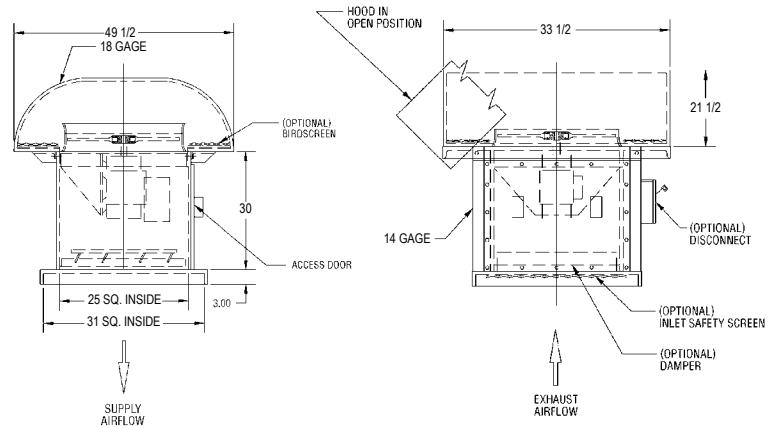
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 021

Prop Diameter = 21 in.	Fan Weight = 220 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 5.50 x RPM
Maximum Motor Frame Size = 184	
Inlet & Outlet Diameter (Area) = 21.22 in. (2.46 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	1150	22	4448	0.39	4184	0.41	3814	0.44	3306	0.45								
		28	5259	0.50	4917	0.56	4490	0.55	3931	0.58								
	1750	22	6830	1.36	6638	1.40	6436	1.44	6219	1.49	5975	1.53	5705	1.56	5382	1.58	4485	1.58
		28	8003	1.75	7793	1.90	7567	1.98	7300	1.93	7021	1.92	6722	1.96	6369	2.00	5413	2.06

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	2611	0.08	2094	0.09												
		18	3046	0.09	2444	0.11												
		22	3601	0.14	2880	0.15												
		26	3883	0.16	3258	0.17												
		30	4402	0.22	3742	0.24												
	1750	14	3973	0.28	3657	0.29	3310	0.30	2893	0.31								
		18	4636	0.33	4263	0.36	3853	0.38	3381	0.39								
		22	5480	0.49	5021	0.52	4544	0.54	3987	0.55								
		26	5909	0.57	5529	0.59	5104	0.61	4594	0.62								
		30	6699	0.78	6270	0.81	5832	0.84	5324	0.86								

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

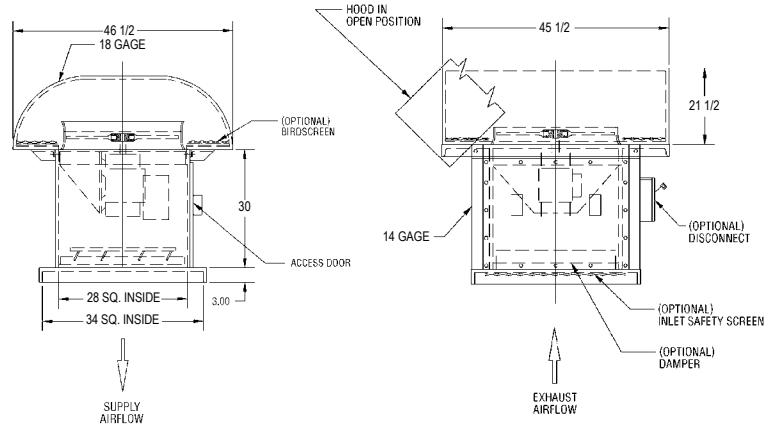
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 024

Prop Diameter = 24 in.	Fan Weight = 250 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 6.28 x RPM
Maximum Motor Frame Size = 184	
Inlet & Outlet Diameter (Area) = 24.25 in. (3.21 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
097*	870	22	5069	0.33	4600	0.36	3943	0.38											
		28	5939	0.42	5398	0.46	4671	0.48											
	1150	22	6700	0.75	6361	0.79	5981	0.84	5511	0.87	4867	0.88							
		28	7850	0.97	7481	1.10	7019	1.05	6500	1.09	5800	1.13							

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	3897	0.15	3328	0.17	2543	0.17										
		18	4547	0.18	3875	0.21	2998	0.22										
		22	5375	0.27	4571	0.29	3543	0.30										
		26	5796	0.31	5101	0.33	4180	0.35										
		30	6571	0.43	5818	0.46	4899	0.48										
	1750	14	5930	0.54	5572	0.56	5187	0.58	4768	0.59	4273	0.60						
		18	6920	0.65	6503	0.68	6047	0.72	5562	0.74	5000	0.76						
		22	8180	0.96	7655	0.99	7127	1.03	6556	1.05	5889	1.06						
		26	8820	1.11	8402	1.14	7915	1.17	7415	1.19	6803	1.21	6070	1.22				
		30	10000	1.51	9512	1.56	9012	1.61	8512	1.65	7891	1.68	7158	1.71				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

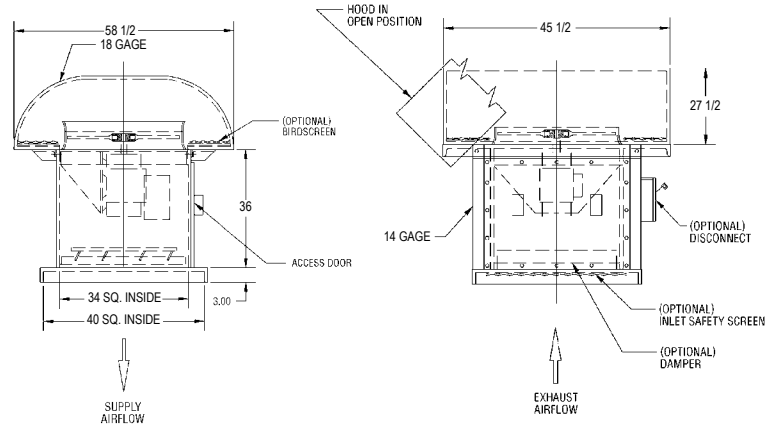
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 027

Prop Diameter = 27 in.	Fan Weight = 340 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 7.07 x RPM
Maximum Motor Frame Size = 184	
Inlet & Outlet Diameter (Area) = 27.28 in. (4.06 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
097*	870	22	7217	0.59	6698	0.63	6057	0.67	5115	0.9									
		28	8456	0.76	7869	0.85	7136	0.84	6120	0.89									
	1150	22	9540	1.36	9163	1.41	8746	1.47	8268	1.53	7712	1.57	6988	1.59	5812	1.53			
		28	11177	1.75	10767	1.95	10270	1.94	9722	1.92	9105	1.98	8317	2.04	7153	2.05			

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	5548	0.28	4916	0.29	4179	0.30										
		18	6475	0.33	5731	0.36	4861	0.39										
		22	7654	0.49	6753	0.52	5735	0.54										
		26	8252	0.57	7483	0.60	6574	0.62										
		30	9357	0.77	8512	0.82	7589	0.86										
	1750	14	8443	0.97	8040	1.00	7620	1.03	7180	1.05	6687	1.07	6124	1.08	5240	1.08		
		18	9853	1.17	9384	1.22	8883	1.27	8358	1.31	7805	1.34	7159	1.38	6376	1.39		
		22	11647	1.73	11057	1.78	10464	1.83	9858	1.87	9194	1.90	8439	1.92	7545	1.91		
		26	12558	2.00	12108	2.04	11560	2.09	11014	2.12	10423	2.15	9733	2.18	8934	2.20		
		30	14238	2.73	13680	2.80	13130	2.87	12568	2.92	11983	2.98	11284	3.03	10488	3.07		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

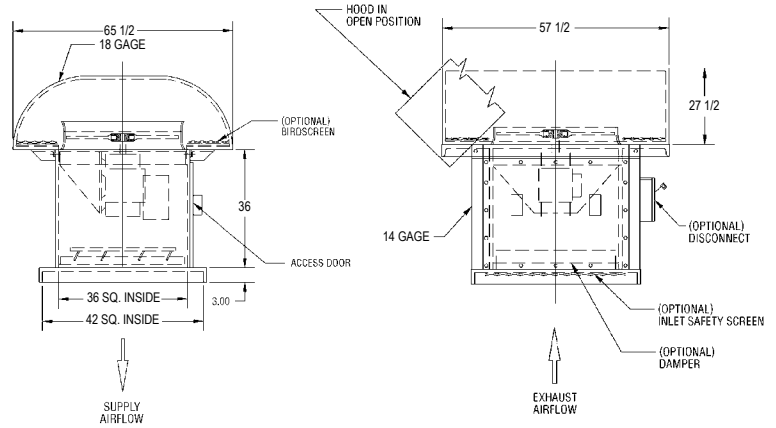
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 030

Prop Diameter = 30 in.	Fan Weight = 380 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 7.85 x RPM
Maximum Motor Frame Size = 215	
Inlet & Outlet Diameter (Area) = 30.31 in. (5.01 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
097*	870	22	10096	1.06	9530	1.12	8876	1.18	8002	1.22									
		28	14547	2.76	14020	2.99	13413	3.11	12635	3.06									
	1150	22	13345	2.45	12926	2.53	12478	2.60	11986	2.69	11424	2.76	10759	2.81	9841	2.83			
		28	15635	3.15	15179	3.43	14666	3.55	14076	3.47	13442	3.47	12710	3.56	11755	3.62			

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	7761	0.50	7069	0.52	6292	0.54										
		18	9057	0.60	8242	0.64	7323	0.68										
		22	10707	0.89	9707	0.93	8637	0.97										
		26	11544	1.03	10708	1.06	9753	1.09										
		30	13089	1.39	12153	1.46	11175	1.51										
	1750	14	11811	1.76	11363	1.79	10909	1.83	10424	1.87	9914	1.90	9350	1.92	8639	1.93		
		18	13783	2.11	13262	2.18	12722	2.25	12147	2.31	11554	2.37	10905	2.42	10171	2.45		
		22	16293	3.12	15637	3.19	14980	3.26	14315	3.32	13625	3.38	12856	3.42	12001	3.44		
		26	17567	3.61	17067	3.67	16487	3.73	15878	3.78	15254	3.82	14590	3.87	13805	3.91		
		30	19918	4.92	19307	5.02	18691	5.11	18066	5.20	17432	5.28	16753	5.36	15978	5.43		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

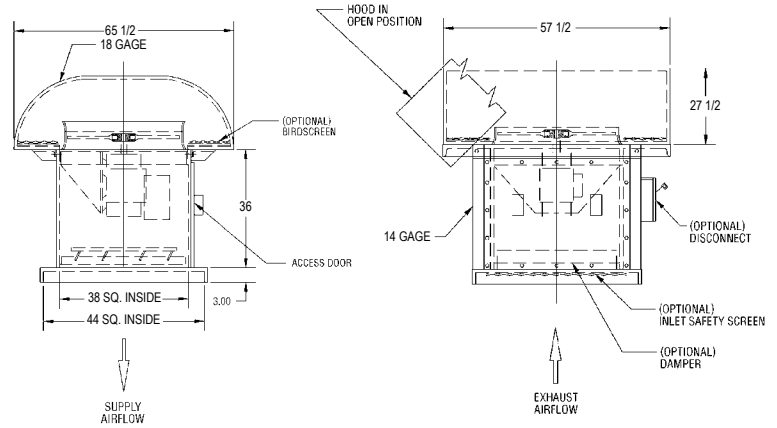
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 032

Prop Diameter = 32 in.	Fan Weight = 400 lbs.
Maximum RPM = 1750	Tip Speed, FPM = 8.38 x RPM
Maximum Motor Frame Size = 215	
Inlet & Outlet Diameter (Area) = 32.33 in. (5.70 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	870	22	12015	1.38	11418	1.44	10755	1.52	9926	1.58	8830	1.61	6533	1.44				
		28	14077	1.77	13430	2.01	12614	1.93	11704	1.99	10503	2.06	8275	2.05				
	1150	22	15881	3.18	15435	3.27	14966	3.36	14465	3.47	13899	3.56	13273	3.63	12527	3.69	10469	3.68
		28	18607	4.09	18121	4.42	17597	4.62	16979	4.51	16333	4.47	15639	4.57	14823	4.67	12622	4.80

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	1150	14	9237	0.65	8505	0.68	7701	0.70	6737	0.71								
		18	10779	0.78	9916	0.83	8965	0.88	7871	0.91								
		22	12742	1.15	11677	1.20	10571	1.25	9284	1.27								
		26	13739	1.33	12858	1.37	11872	1.41	10693	1.45								
		30	15577	1.81	14581	1.89	13566	1.95	12390	2.01	10666	2.05						
	1750	14	14056	2.28	13578	2.32	13101	2.37	12586	2.41	12065	2.45	11500	2.48	10905	2.50	9441	2.53
		18	16403	2.74	15847	2.82	15281	2.90	14673	2.98	14053	3.05	13402	3.11	12701	3.16	11029	3.24
		22	19390	4.05	18690	4.13	17990	4.21	17286	4.29	16579	4.36	15800	4.42	14972	4.46	13044	4.49
		26	20907	4.68	20373	4.75	19772	4.82	19121	4.89	18474	4.94	17828	4.99	17052	5.05	15325	5.14
		30	23704	6.38	23053	6.50	22399	6.61	21732	6.72	21065	6.82	20399	6.91	19638	7.00	17900	7.16

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

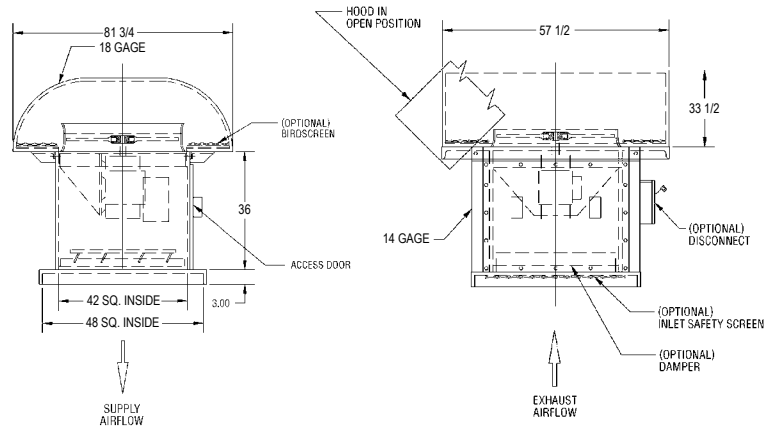
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 036

Prop Diameter = 36 in.	Fan Weight = 550 lbs.
Maximum RPM = 1150	Tip Speed, FPM = 9.42 x RPM
Maximum Motor Frame Size = 256	
Inlet & Outlet Diameter (Area) = 36.38 in. (7.72 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	695	22	13666	1.27	12808	1.34	11784	1.42	10435	1.48	7729	1.36						
		28	16011	1.63	15055	1.83	13589	1.79	12385	1.88	9715	1.90						
	870	22	17107	2.48	16443	2.58	15710	2.69	14876	2.78	13914	2.86	12675	2.91	10712	2.82		
		28	20043	3.19	19320	3.55	18448	3.54	17488	3.50	16418	3.61	15058	3.71	13088	3.75		

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	870	14	9950	0.50	8836	0.54	7553	0.56										
		18	11611	0.61	10301	0.66	8777	0.71										
		22	13725	0.90	12138	0.95	10354	0.99										
		26	14799	1.04	13444	1.09	11851	1.12										
		30	16779	1.41	15290	1.49	13673	1.56										
	1150	14	13152	1.16	12334	1.21	11455	1.25	10488	1.27	9329	1.29						
		18	15348	1.40	14395	1.48	13353	1.55	12242	1.60	10909	1.65						
		22	18142	2.07	16944	2.15	15738	2.22	14427	2.27	12861	2.30						
		26	19561	2.39	18604	2.46	17941	2.52	16331	2.57	14916	2.61						
		30	22179	3.26	21064	3.37	19923	3.47	18765	3.55	17326	3.64	15608	3.69				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

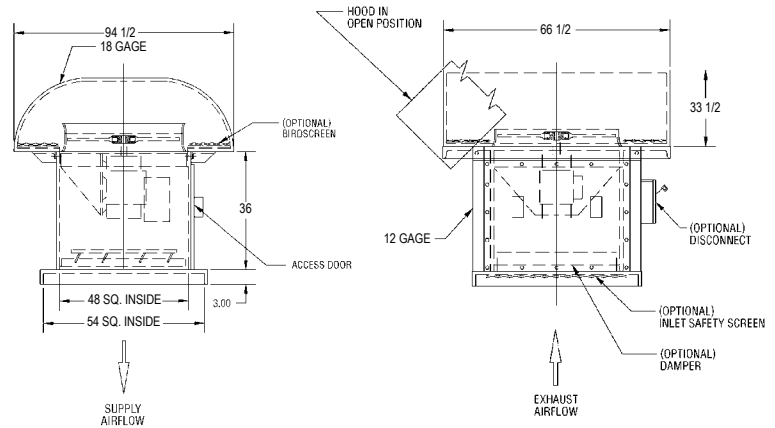
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 042

Prop Diameter = 42 in.	Fan Weight = 750 lbs.
Maximum RPM = 1150	Tip Speed, FPM = 11.00 x RPM
Maximum Motor Frame Size = 256	
Inlet & Outlet Diameter (Area) = 42.44 in. (9.82 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	695	22	21701	2.74	20731	2.85	19643	3.00	18335	3.10	16718	3.19	14440	3.18				
		28	25426	3.51	24370	3.97	23050	3.86	21589	3.91	19825	4.05	17368	4.13				
	870	22	27165	5.37	26391	5.51	25575	5.68	24705	5.86	23713	6.00	22626	6.12	21308	6.22	17545	6.16
		28	31828	6.89	30984	7.46	30069	7.79	28998	7.59	27870	7.55	26665	7.72	25225	7.89	21264	8.10

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	870	14	15800	1.09	14528	1.14	13129	1.18	11439	1.20								
		18	18437	1.31	16938	1.40	15286	1.48	13378	1.54								
		22	21795	1.94	19947	2.03	18024	2.11	15765	2.15								
		26	23500	2.24	21969	2.32	20259	2.38	18191	2.44								
		30	26644	3.06	24916	3.18	23156	3.29	21091	3.39								
	1150	14	20885	2.52	19930	2.59	18941	2.65	17900	2.71	16753	2.75	15487	2.78	13915	2.80		
		18	24371	3.03	23262	3.15	22082	3.27	20848	3.37	19548	3.46	18052	3.54	16296	3.58		
		22	28809	4.47	27412	4.59	26011	4.71	24595	4.82	23039	4.91	21306	4.96	19272	4.96		
		26	31063	5.17	29998	5.28	28711	5.38	27417	5.47	26064	5.54	24473	5.62	22667	5.68		
		30	35219	7.06	33918	7.23	32598	7.39	31266	7.54	29935	7.67	28303	7.81	26506	7.91		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

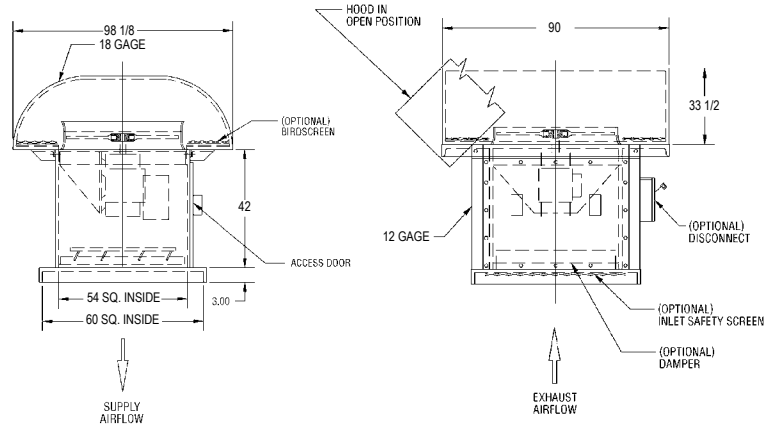
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 048

Prop Diameter = 48 in.	Fan Weight = 950 lbs.
Maximum RPM = 1150	Tip Speed, FPM = 12.57 x RPM
Maximum Motor Frame Size = 256	
Inlet & Outlet Diameter (Area) = 48.50 in. (12.83 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	695	22	32393	5.33	31285	5.51	30083	5.71	28796	5.92	27241	6.06	25411	6.19	23098	6.24		
		28	37953	6.85	36746	7.53	35345	7.66	33810	7.43	32086	7.64	30082	7.84	27611	8.01		

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	870	14	23584	2.12	22143	2.21	20596	2.27	18901	2.32	16889	2.35						
		18	27522	2.56	25845	2.69	24010	2.82	22056	2.92	19758	3.01						
		22	32533	3.77	30422	3.91	28297	4.04	25994	4.14	23279	4.19						
		26	35078	4.36	33395	4.49	31434	4.60	29410	4.68	26935	4.76	23958	4.80				
		30	39771	5.96	37807	6.15	35796	6.33	33780	6.48	31260	6.63	28274	6.73				
	1150	14	31175	4.90	30084	5.01	28994	5.12	27812	5.21	26623	5.29	25313	5.35	23954	5.39	20342	5.46
		18	36379	5.90	35111	6.09	33812	6.26	32424	6.43	30999	6.59	29513	6.71	27873	6.84	23981	6.99
		22	43003	8.72	41407	8.90	39810	9.08	38201	9.25	36568	9.41	34790	9.54	32866	9.63	28347	9.65
		26	46368	10.10	45151	10.20	43767	10.40	42281	10.60	40805	10.70	39309	10.80	37514	10.90	33442	11.10
		30	52571	13.80	51085	14.00	49591	14.30	48069	14.50	46548	14.70	45026	14.90	43238	15.10	39192	15.40

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

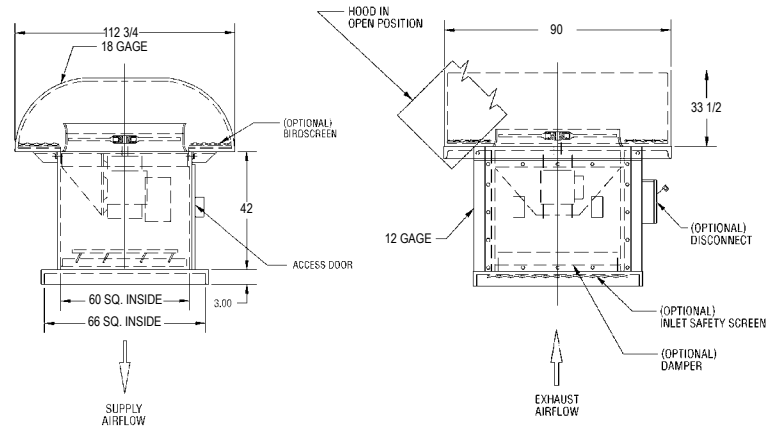
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 054

Prop Diameter = 54 in.	Fan Weight = 1050 lbs.
Maximum RPM = 1050	Tip Speed, FPM = 14.14 x RPM
Maximum Motor Frame Size = 256	
Inlet & Outlet Diameter (Area) = 54.56 in. (16.24 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
097*	695	22	46122	9.61	44876	9.86	45376	10.10	42177	10.40	40646	10.70	38896	10.90	36929	11.10	31628	11.20
		28	54039	12.30	52681	13.30	51241	14.00	49518	13.70	44745	13.50	45806	13.70	43636	14.00	38053	14.50

PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	695	14	26826	1.95	24788	2.04	22568	2.11	19953	2.15								
		18	31304	2.35	28900	2.50	26257	2.64	23248	2.74								
		22	37004	3.47	34031	3.62	30966	3.76	27436	3.84								
		26	39889	4.01	37452	4.15	34698	4.26	31506	4.36	27423	4.41						
	870	14	33580	3.83	31958	3.94	30264	4.05	28496	4.14	26501	4.19	24208	4.23				
		18	39186	4.61	37301	4.80	35283	4.99	33165	5.15	30921	5.29	28326	5.42	25038	5.43		
		22	46321	6.80	43947	7.00	41564	7.19	39118	7.36	36432	7.48	33364	7.55	29747	7.50		
		26	49946	7.86	48135	8.04	45926	8.21	43728	8.33	41332	8.45	38539	8.58	35287	8.64		
		30	56628	10.70	54418	11.00	52170	11.30	49907	11.50	47533	11.70	44701	11.90	41462	12.10		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

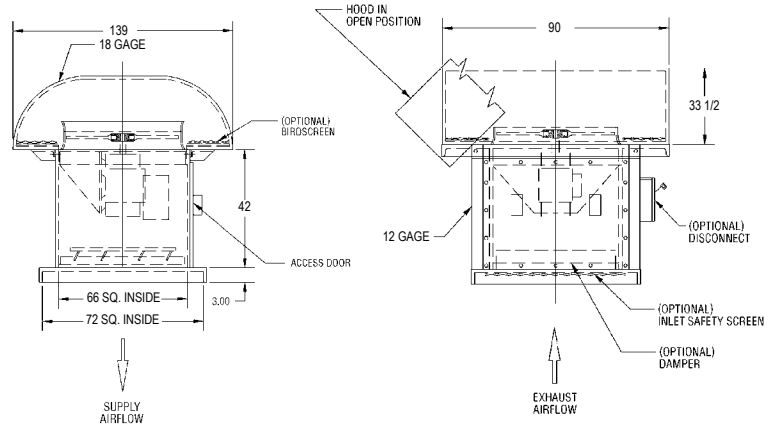
# Direct Drive Fan Data - HRD

## Hooded Roof Ventilators

# 060

Prop Diameter = 60 in.	Fan Weight = 1400 lbs.
Maximum RPM = 870	Tip Speed, FPM = 15.71 x RPM
Maximum Motor Frame Size = 256	
Inlet & Outlet Diameter (Area) = 60.63 in. (20.05 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	695	14	36798	3.30	34542	3.43	32120	3.54	29466	3.61	26310	3.66						
		18	42941	3.98	40317	4.19	37445	4.39	34386	4.54	30778	4.68						
		22	50760	5.87	47457	6.09	44131	6.29	40526	6.45	36266	6.51						
		26	54731	6.79	52096	6.98	49027	7.15	45855	7.28	41978	7.41	37310	7.46				
		30	62053	9.27	58980	9.57	55833	9.85	52672	10.10	48725	10.30	44041	10.50				
	870	14	46063	6.48	44261	6.64	42436	6.80	40471	6.92	38459	7.03	36125	7.10	33701	7.16		
		18	53754	7.80	51658	8.07	49475	8.33	47181	8.58	44766	8.78	42238	8.97	39355	9.15		
		22	63541	11.50	60903	11.80	58264	12.10	55601	12.30	52789	12.50	49771	12.70	46438	12.80		
		26	68512	13.30	66501	13.60	64150	13.80	61698	14.00	59262	14.20	54514	14.30	53444	14.50		
		30	77678	18.20	75223	18.60	72743	18.90	70229	19.30	67714	19.60	65013	19.90	61909	20.20	54457	20.60

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

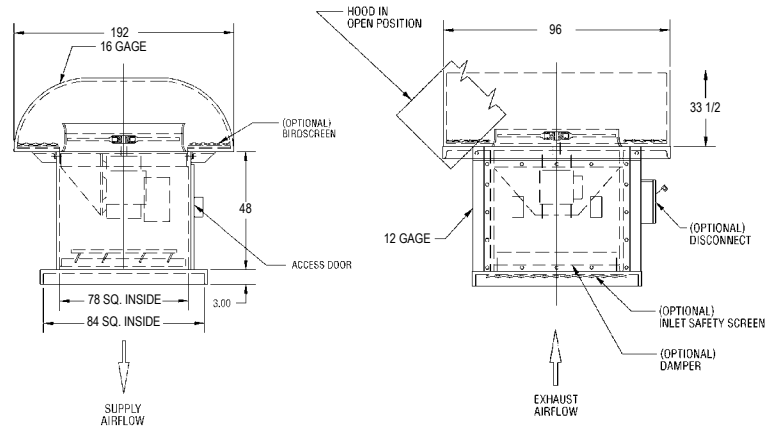
# HRD - Direct Drive Fan Data

## Hooded Roof Ventilators

# 072

Prop Diameter = 72 in.	Fan Weight = 2000 lbs.
Maximum RPM = 695	Tip Speed, FPM = 18.85 x RPM
Maximum Motor Frame Size = 365	
Inlet & Outlet Diameter (Area) = 72.75 in. (28.87 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	RPM	PITCH	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
091	695	14	63586	8.22	60880	8.44	58100	8.65	55150	8.82	51997	8.95	48624	9.05	44434	9.11		
		18	74202	9.89	71055	10.30	67737	10.60	64288	11.00	60599	11.20	56551	11.50	51925	11.70		
		22	87713	14.60	83749	15.00	79780	15.40	75779	15.70	71440	16.00	66691	16.10	61269	16.20		
		26	94575	16.90	91554	17.20	87956	17.50	84279	17.80	80619	18.00	76208	18.30	71332	18.50		
		30	107228	23.10	103540	23.60	99803	24.10	96026	24.60	92249	25.00	87870	25.40	82965	25.70		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

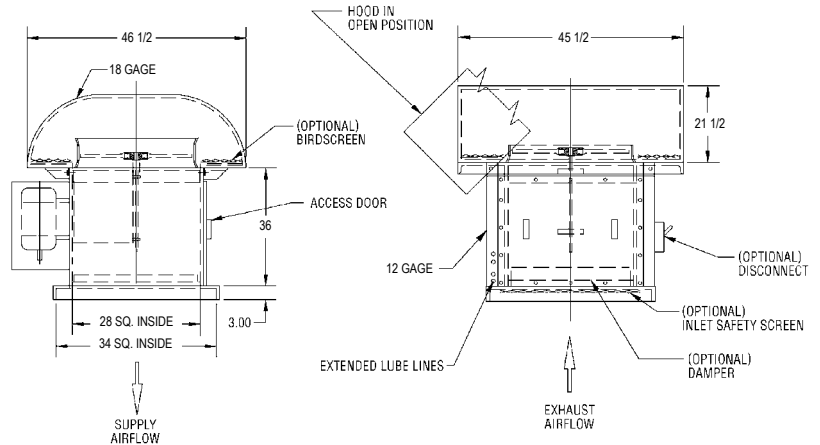
# Belt Drive Fan Data - HRR

## Hooded Roof Ventilators

# 024

Prop Diameter = 24 in.	Maximum Motor Frame Size = 215
Fan Weight = 270 lbs.	Tip Speed, FPM = 6.28 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 0.7397 F (091) = 0.253	
Inlet & Outlet Diameter (Area) = 24.25 in. (3.21 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	3852	569	0.12	674	0.22	786	0.36	902	0.53	1025	0.75						
	4494	664	0.18	754	0.30	847	0.44	943	0.62	1043	0.83						
	5136	759	0.27	837	0.40	916	0.55										
	5778	854	0.39	924	0.53	994	0.70	1067	0.88	1142	1.10	1216	1.33	1295	1.59	1455	2.19
	6420	949	0.53	1012	0.69	1075	0.87	1137	1.05	1205	1.28	1273	1.52	1339	1.77	1478	2.36
	7062	1044	0.71	1100	0.88	1157	1.07	1216	1.27	1274	1.49	1335	1.74	1397	2.01	1522	2.59
	7704	1139	0.92	1190	1.11	1243	1.31	1296	1.52	1348	1.75	1404	2.00	1459	2.28	1572	2.87
	8346	1234	1.17	1280	1.37	1330	1.59	1378	1.81	1428	2.05	1474	2.30	1528	2.58	1631	3.19
8988	1329	1.46	1372	1.67	1418	1.91	1463	2.15	1508	2.40	1553	2.66	1597	2.93			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	3852	811	0.11	993	0.23	1147	0.37	1281	0.53	1408	0.70	1526	0.89	1642	1.10	1878	1.59
	4494	947	0.17	1108	0.31	1246	0.46	1371	0.64	1485	0.82	1597	1.02	1699	1.23	1898	1.70
	5136	1082	0.26	1227	0.41	1352	0.58	1467	0.77	1576	0.97	1675	1.18	1774	1.40	1955	1.88
	5778	1217	0.67	1348	0.54	1462	0.72	1571	0.92	1671	1.14	1767	1.36	1856	1.60	2031	2.10
	6420	1352	0.50	1472	0.69	1579	0.89	1678	1.10	1773	1.33	1862	1.57	1949	1.82	2108	2.35
	7062	1487	0.67	1598	0.87	1697	1.09	1788	1.31	1878	1.56	1964	1.82	2044	2.08	2199	2.64
	7704	1623	0.87	1725	1.09	1818	1.32	1904	1.56	1986	1.82	2068	2.09	2146	2.37	2293	2.96
	8346	1758	1.10	1853	1.34	1940	1.59	2023	1.85	2099	2.12	2175	2.40	2250	2.70		
8988	1893	1.38	1982	1.64	2064	1.90	2142	2.18	2216	2.46	2285	2.75	2357	3.06			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 props are suitable for exhaust or supply applications, however, 097 props are NOT reversible. For reversible flow, select a 091 prop and add .39 VP loss for equal airflow in both directions.

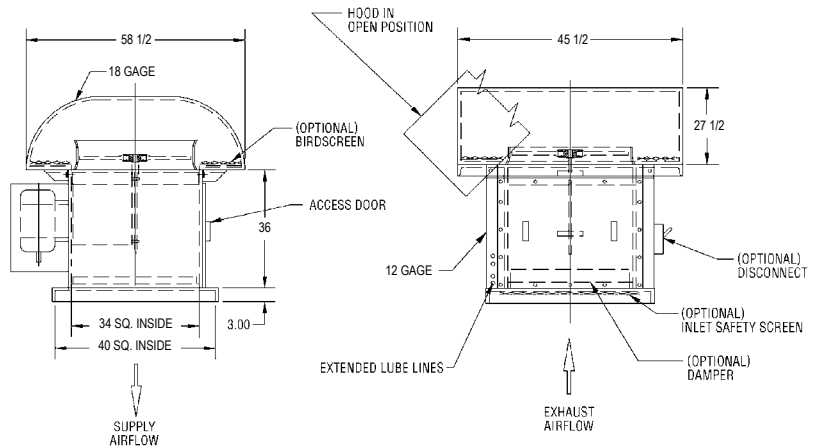
# HRR - Belt Drive Fan Data

## Hooded Roof Ventilators

# 027

Prop Diameter = 27 in.	Maximum Motor Frame Size = 215
Fan Weight = 370 lbs.	Tip Speed, FPM = 7.07 x RPM
Maximum BHP = $F \text{ (RPM/1000)}^3$ F (097) = 1.333    F (091) = 0.456	
Inlet & Outlet Diameter (Area) = 27.28 in. (4.06 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	4872	506	0.15	599	0.28	699	0.45	801	0.67	911	0.95	1021	1.36				
	5684	590	0.23	670	0.38	753	0.56	838	0.78	927	1.05						
	6496	674	0.34	744	0.51	814	0.70	890	0.93	965	1.19	1042	1.49	1122	1.83		
	7308	759	0.49	821	0.67	883	0.88	948	1.12	1015	1.39	1081	1.68	1151	2.01	1293	2.78
	8120	843	0.67	899	0.87	955	1.10	1010	1.33	1071	1.62	1131	1.92	1190	2.24	1314	2.98
	8932	927	0.90	978	1.11	1028	1.35	1080	1.61	1132	1.89	1186	2.20	1242	2.54	1352	3.28
	9744	1012	1.16	1057	1.40	1105	1.65	1152	1.93	1198	2.21	1247	2.53	1296	2.88	1397	3.63
	10556	1096	1.48	1137	1.73	1182	2.01	1224	2.29	1266	2.59	1310	2.90	1357	3.27	1449	4.04
11368	1180	1.85	1219	2.11	1260	2.41	1299	2.71	1340	3.03	1380	3.36	1419	3.70			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	4872	721	0.14	862	0.29	1019	0.47	1138	0.67	1252	0.89	1356	1.13	1459	1.39	1669	2.01
	5884	841	0.22	984	0.39	1107	0.59	1219	0.80	1320	1.04	1419	1.29	1510	1.56	1687	2.16
	6496	961	0.32	1090	0.52	1201	0.73	1304	0.97	1400	1.22	1488	1.49	1577	1.77	1738	2.38
	7308	1081	0.46	1198	0.68	1299	0.91	1396	1.16	1485	1.44	1570	1.72	1650	2.02	1805	2.66
	8120	1201	0.63	1308	0.87	1403	1.12	1491	1.39	1575	1.69	1654	1.99	1732	2.31	1874	2.97
	8932	1321	0.84	1419	1.10	1508	1.38	1589	1.66	1669	1.97	1745	2.30	1816	2.63	1954	3.33
	9744	1441	1.10	1532	1.38	1615	1.67	1692	1.98	1765	2.30	1838	2.64	1907	3.00	2038	3.74
	10556	1562	1.39	1646	1.70	1724	2.01	1797	2.34	1865	2.67	1933	3.03	2000	3.41		
11368	1682	1.74	1761	2.07	1834	2.40	1903	2.75	1969	3.11	2031	3.47	2094	3.87			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

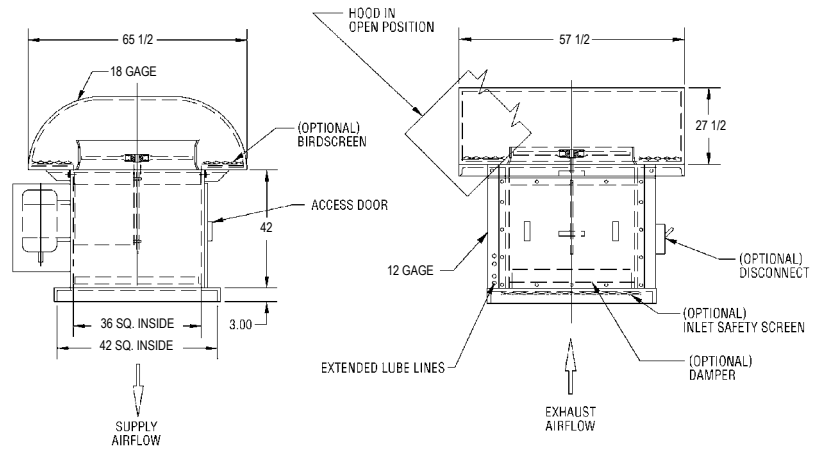
# Belt Drive Fan Data - HRR

## Hooded Roof Ventilators

# 030

Prop Diameter = 30 in.	Maximum Motor Frame Size = 256
Fan Weight = 420 lbs.	Tip Speed, FPM = 7.85 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 2.06    F (091) = 0.73	
Inlet & Outlet Diameter (Area) = 30.31 in. (5.01 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	6060	459	0.18	543	0.35	633	0.56	726	0.84	826	1.18	936	1.64	1016	2.15		
	7070	535	0.29	608	0.47	683	0.70	760	0.97	840	1.30	926	1.69	1016	2.15		
	8080	612	0.43	674	0.64	738	0.87	807	1.16	874	1.48	945	1.86	1017	2.27		
	9090	688	0.61	738	0.84	801	1.10	859	1.39	920	1.73	980	2.09	1043	2.50	1172	3.45
	10100	764	0.84	815	1.09	866	1.36	916	1.66	971	2.01	1025	2.39	1079	2.78	1191	3.71
	11470	829	1.12	887	1.39	932	1.68	979	2.00	1026	2.35	1136	2.74	1125	3.15	1225	4.08
	12120	918	1.45	959	1.74	1002	2.06	1045	2.40	1086	2.75	1131	3.15	1175	3.58	1266	4.51
	13130	994	1.84	1031	2.16	1072	2.50	1110	2.85	1149	3.23	1188	3.61	1230	4.06	1313	5.02
14140	1070	2.30	1106	2.63	1142	3.00	1178	3.38	1215	3.77	1251	4.18	1286	4.60			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	6060	654	0.17	800	0.36	923	0.58	1031	0.83	1134	1.11	1229	1.41	1323	1.73	1512	2.50
	7070	762	0.27	892	0.49	1004	0.73	1105	1.00	1196	1.29	1286	1.61	1368	1.94	1529	2.68
	8080	872	0.40	989	0.65	1089	0.91	1182	1.20	1269	1.52	1349	1.85	1429	2.20	1575	2.96
	9090	980	0.57	1086	0.84	1178	1.13	1266	1.45	1346	1.79	1424	2.14	1495	2.51	1636	3.31
	10100	1089	0.79	1186	1.09	1272	1.40	1352	1.73	1428	2.10	1500	2.48	1570	2.86	1698	3.69
	11110	1198	1.05	1287	1.37	1368	1.72	1441	2.07	1513	2.45	1582	2.86	1646	3.27	1772	4.15
	12120	1307	1.37	1389	1.72	1464	2.08	1534	2.46	1600	2.86	1666	3.29	1728	3.73	1847	4.65
	13130	1416	1.74	1492	2.11	1563	2.50	1630	2.91	1691	3.33	1752	3.77	1812	4.24		
14140	1525	2.17	1597	2.57	1663	2.99	1725	3.42	1785	3.87	1841	4.32	1898	4.81			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

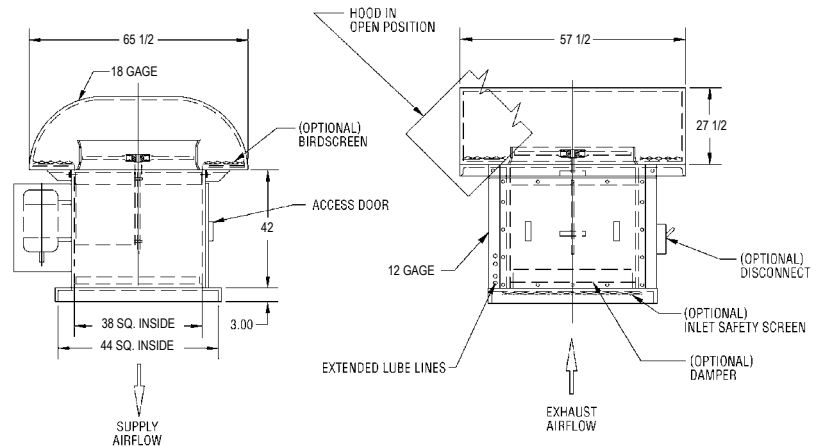
# HRR - Belt Drive Fan Data

## Hooded Roof Ventilators

# 032

Prop Diameter = 32 in.	Maximum Motor Frame Size = 256
Fan Weight = 470 lbs.	Tip Speed, FPM = 8.38 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 3.117    F (091) = 1.066	
Inlet & Outlet Diameter (Area) = 32.33 in. (5.70 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	6852	427	0.20	506	0.39	590	0.64	676	0.95	769	1.34	862	1.91	946	2.43		
	7994	499	0.33	566	0.53	636	0.79	708	1.10	782	1.47	862	1.91	946	2.43		
	9136	570	0.49	628	0.72	688	0.99	751	1.31	814	1.68	880	2.10	947	2.57		
	10278	641	0.69	683	0.95	746	1.24	800	1.57	857	1.95	912	2.36	971	2.83	1091	3.90
	11420	712	0.95	759	1.23	806	1.54	853	1.88	904	2.27	955	2.70	1005	3.15	1109	4.19
	12562	763	1.26	826	1.57	868	1.90	912	2.26	956	2.66	1002	3.10	1048	3.57	1141	4.61
	13704	855	1.64	893	1.97	933	2.33	973	2.71	1011	3.11	1053	3.56	1095	4.05	1180	5.10
	14846	926	2.08	961	2.44	998	2.83	1034	3.23	1071	3.65	1106	4.09	1146	4.60	1223	5.68
15988	997	2.60	1030	2.98	1064	3.39	1098	3.82	1132	4.27	1165	4.73	1198	5.21			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	6852	609	0.19	745	0.40	860	0.66	961	0.94	1056	1.25	1145	1.59	1232	1.96	1408	2.82
	7994	710	0.31	831	0.55	935	0.83	1029	1.13	1114	1.46	1198	1.82	1274	2.19	1424	3.03
	9136	812	0.46	921	0.73	1014	1.03	1101	1.36	1182	1.72	1257	2.09	1331	2.49	1467	3.35
	10278	913	0.65	1012	0.95	1097	1.28	1179	1.64	1253	2.02	1326	2.42	1393	2.84	1523	3.74
	11420	1015	0.89	1105	1.23	1185	1.58	1259	1.96	1330	2.37	1397	2.80	1462	3.24	1581	4.17
	12562	1116	1.19	1199	1.55	1274	1.94	1342	2.34	1409	2.77	1473	3.23	1533	3.70	1650	4.69
	13704	1218	1.55	1294	1.94	1364	2.35	1429	2.78	1490	3.23	1552	3.72	1610	4.22	1720	5.26
	14846	1319	1.97	1390	2.39	1456	2.83	1518	3.29	1575	3.77	1632	4.27	1688	4.80		
15988	1421	2.45	1487	2.91	1549	3.38	1607	3.87	1663	4.38	1715	4.89	1768	5.45			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.



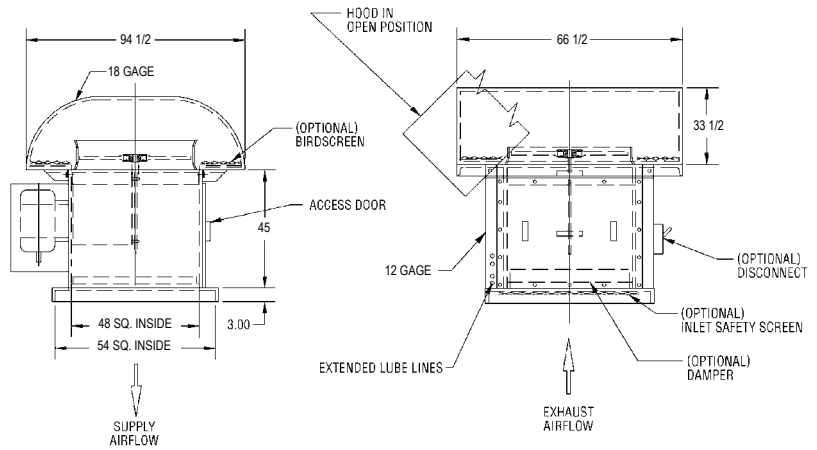
# HRR - Belt Drive Fan Data

## Hooded Roof Ventilators

# 042

Prop Diameter = 42 in.	Maximum Motor Frame Size = 286
Fan Weight = 840 lbs.	Tip Speed, FPM = 11.00 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 12.119    F (091) = 3.836	
Inlet & Outlet Diameter (Area) = 42.44 in. (9.82 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	11784	325	0.35	385	0.67	449	1.10	515	1.63	586	2.30						
	13748	379	0.56	431	0.92	484	1.36	539	1.90	596	2.53	657	3.29				
	15712	433	0.83	476	1.23	523	1.69	572	2.26	620	2.89	670	3.61				
	17676	488	1.19	527	1.63	568	2.12	609	2.70	652	3.35	695	4.06	740	4.86	831	6.71
	19640	542	1.63	578	2.11	614	2.65	649	3.22	688	3.91	727	4.65	765	5.42	844	7.22
	21804	596	2.16	628	2.69	661	3.27	694	3.89	728	4.56	762	5.33	798	6.14	869	7.93
	23568	650	2.81	679	3.38	710	4.00	740	4.66	770	5.34	802	6.12	833	6.96	898	8.77
	25532	704	3.57	731	4.18	760	4.85	787	5.54	815	6.27	842	7.02	872	7.90	931	9.76
27496	758	4.46	783	5.11	810	5.82	835	6.56	861	7.33	887	8.12	912	8.95			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	11784	475	0.37	588	0.76	692	1.27	787	1.86	872	2.51	951	3.25	1024	4.06	1158	5.91
	13748	555	0.59	652	1.03	744	1.57	831	2.20	911	2.90	986	3.63	1056	4.46	1184	6.28
	15712	634	0.88	720	1.37	801	1.95	880	2.61	956	3.35	1028	4.14	1093	4.97	1217	6.82
	17676	713	1.25	790	1.80	864	2.42	935	3.12	1003	3.88	1071	4.72	1134	5.59	1253	7.47
	19640	792	1.71	862	2.31	929	2.98	993	3.71	1058	4.52	1119	5.38	1180	6.31	1293	8.28
	21604	871	2.28	935	2.93	996	3.64	1056	4.42	1114	5.25	1173	6.16	1228	7.10	1337	9.17
	23568	951	2.96	1009	3.67	1066	4.43	1121	5.25	1175	6.12	1229	7.06	1282	8.05		
	25532	1030	3.76	1084	4.52	1137	5.34	1187	6.19	1239	7.12	1288	8.07	1338	9.11		
27456	1109	4.70	1159	5.51	1209	6.39	1256	7.28	1304	8.25	1351	9.26					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

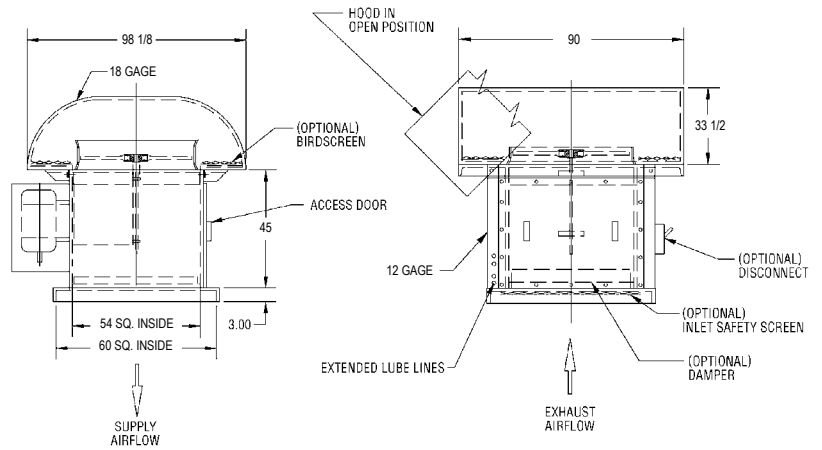
# Belt Drive Fan Data - HRR

## Hooded Roof Ventilators

# 048

Prop Diameter = 48 in.	Maximum Motor Frame Size = 286
Fan Weight = 1100 lbs.	Tip Speed, FPM = 12.57 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 23.63    F (091) = 7.48	
Inlet & Outlet Diameter (Area) = 48.50 in. (12.83 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	15396	264	0.46	337	0.87	393	1.43	451	2.13	512	3.01						
	17962	332	0.73	377	1.20	423	1.78	472	2.48	522	3.31	574	4.30				
	20528	379	1.09	418	1.61	458	2.21	500	2.95	543	3.77	586	4.71	631	5.78		
	23094	427	1.55	462	2.13	497	2.78	533	3.53	571	4.38	608	5.31	647	6.35	727	8.77
	25660	474	2.13	506	2.76	537	3.46	568	4.21	602	5.11	636	6.07	669	7.09	739	9.43
	28226	522	2.83	550	3.52	578	4.27	607	5.08	637	5.96	667	6.96	698	8.02	761	10.40
	30792	569	3.67	595	4.41	621	5.23	648	6.08	674	6.98	702	8.00	729	9.09	786	11.50
	33358	616	4.67	640	5.46	665	6.34	689	7.24	713	8.20	737	9.17	763	10.30	815	12.80
35924	664	5.83	685	6.68	709	7.61	731	8.57	754	9.58	776	10.60	798	11.70			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	15396	416	0.48	514	1.00	605	1.66	689	2.43	763	3.26	832	4.25	896	5.31	1014	7.71
	17982	485	0.77	571	1.35	651	2.06	727	2.86	798	3.78	863	4.75	924	5.83	1036	8.20
	20528	555	1.15	630	1.79	701	2.54	770	3.41	836	4.38	898	5.41	957	6.49	1065	8.91
	23094	624	1.63	692	2.35	756	3.16	818	4.07	878	5.07	937	6.17	992	7.31	1096	9.76
	25660	693	2.24	755	3.02	813	3.89	869	4.84	926	5.91	979	7.02	1032	8.24	1132	10.80
	28226	763	2.98	819	3.83	871	4.76	925	5.78	975	6.86	1028	8.05	1074	9.28	1170	12.00
	30792	832	3.87	883	4.79	933	5.79	981	6.86	1026	8.00	1075	9.22	1122	10.50		
	33358	901	4.92	948	5.91	995	6.98	1039	8.09	1064	9.31	1127	10.50	1171	11.90		
35924	971	6.14	1015	7.20	1058	8.35	1100	9.52	1141	10.80	1182	12.10					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

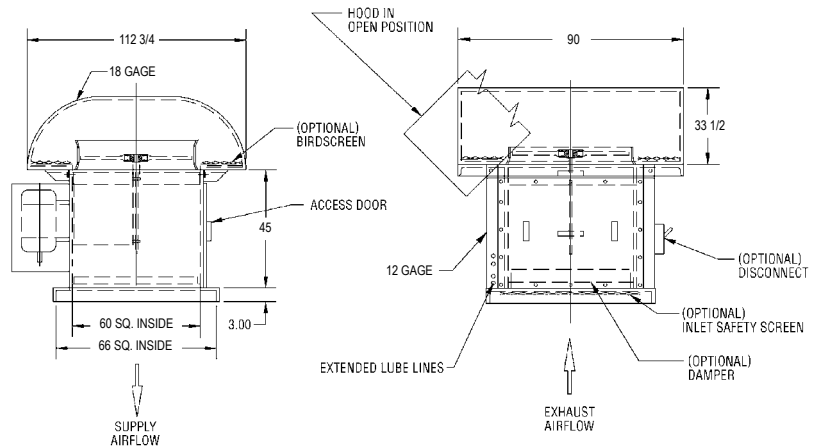
# HRR - Belt Drive Fan Data

## Hooded Roof Ventilators

# 054

Prop Diameter = 54 in.	Maximum Motor Frame Size = 286
Fan Weight = 1200 lbs.	Tip Speed, FPM = 14.14 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 42.58    F (091) = 13.48	
Inlet & Outlet Diameter (Area) = 54.56 in. (16.24 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	19488	253	0.58	299	1.10	349	1.81	401	2.70	455	3.81						
	22736	295	0.92	335	1.52	376	2.25	419	3.14	464	4.19	511	5.44				
	25984	337	1.38	372	2.04	407	2.80	445	3.73	482	4.77	521	5.96	561	7.31		
	29232	379	1.96	410	2.69	442	3.51	474	4.46	507	5.54	540	6.72	575	8.04	647	11.10
	32480	421	2.69	449	3.49	477	4.38	505	5.33	535	6.47	566	7.68	595	8.97	657	11.90
	35728	464	3.58	489	4.45	514	5.41	540	6.43	566	7.44	593	8.81	621	10.20	676	13.10
	38976	506	4.65	529	5.59	552	6.62	576	7.70	599	8.84	624	10.10	648	11.50	699	14.50
	42224	548	5.91	569	6.91	591	8.02	612	9.17	634	10.40	655	11.60	679	13.10	725	16.10
	45472	590	7.39	609	8.46	630	9.64	650	10.80	670	12.10	690	13.40	710	14.80		

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	19488	370	0.61	457	1.27	538	2.10	612	3.08	678	4.15	740	5.38	797	6.71	901	9.76
	22736	431	0.97	507	1.71	579	2.60	646	3.64	709	4.79	767	6.01	822	7.38	921	10.40
	25984	493	1.45	560	2.27	623	3.22	684	4.32	743	5.54	798	6.85	850	8.22	947	11.30
	29232	555	2.07	615	2.97	672	4.00	727	5.15	780	6.41	833	7.80	882	9.25	974	12.30
	32480	616	2.83	671	3.83	723	4.93	773	6.13	823	7.48	870	8.89	918	10.40	1006	13.70
	35728	678	3.77	728	4.86	775	6.02	822	7.32	867	8.69	912	10.20	955	11.80	1040	15.20
	38976	740	4.90	765	6.07	829	7.33	872	8.68	914	10.10	956	11.70	997	13.30		
	42224	801	6.23	843	7.49	885	8.84	924	10.20	964	11.80	1002	13.40	1041	15.10		
	45472	863	7.78	902	9.12	941	10.60	977	12.10	1015	13.70	1051	15.30				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

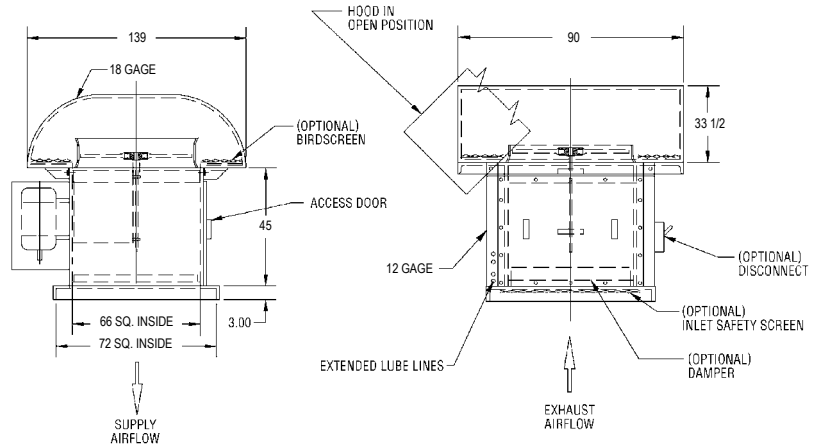
# Belt Drive Fan Data - HRR

## Hooded Roof Ventilators

# 060

Prop Diameter = 60 in.	Maximum Motor Frame Size = 286
Fan Weight = 1620 lbs.	Tip Speed, FPM = 15.71 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 71.96    F (091) = 22.78	
Inlet & Outlet Diameter (Area) = 60.63 in. (20.05 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	24060	226	0.72	269	1.36	314	2.24	361	3.33	410	4.70						
	28070	266	1.14	302	1.87	339	2.78	377	3.87	417	5.17	460	6.71				
	32080	303	1.70	335	2.52	366	3.46	400	4.61	434	5.89	469	7.36	505	9.03		
	36090	341	2.42	369	3.33	397	4.34	427	5.51	457	6.85	486	8.29	518	9.93	582	13.70
	40100	379	3.32	404	4.31	430	5.41	454	6.58	482	7.98	509	9.49	536	11.10	591	14.70
	44110	417	4.42	440	5.50	463	6.67	486	7.94	509	9.32	534	10.90	559	12.50	608	16.20
	48120	455	5.74	476	6.90	497	8.17	518	9.51	539	10.90	561	12.50	583	14.20	629	17.90
	52130	493	7.30	512	8.53	532	9.91	551	11.30	571	12.80	589	14.30	611	16.10	652	19.90
56140	531	9.12	548	10.40	567	11.90	585	13.40	603	15.00	621	16.60	639	18.30			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	24080	333	0.76	411	1.56	484	2.60	551	3.80	611	5.13	666	6.64	717	8.29	811	12.10
	28070	388	1.20	457	2.11	521	3.21	582	4.50	636	5.91	690	7.42	739	9.11	829	12.80
	32080	444	1.79	504	2.80	561	3.97	616	5.33	669	6.84	718	8.45	765	10.10	852	13.90
	36090	499	2.55	553	3.67	605	4.94	655	6.36	702	7.92	750	9.64	794	11.40	877	15.20
	40100	555	3.50	604	4.73	650	6.08	695	7.57	741	9.23	783	11.00	826	12.90	905	16.90
	44110	610	4.66	655	5.99	697	7.43	740	9.04	780	10.70	821	12.60	859	14.50	936	18.70
	48120	666	6.05	707	7.49	746	9.05	785	10.70	823	12.50	860	14.40	897	16.40		
	52130	721	7.69	759	9.23	796	10.90	831	12.60	868	14.50	902	16.50	937	18.60		
56140	777	9.60	812	11.30	847	13.00	880	14.90	913	16.90	946	18.90					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

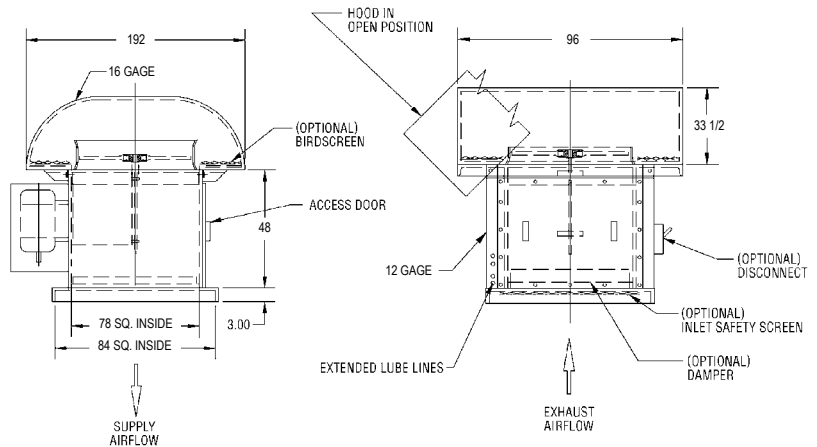
# HRR - Belt Drive Fan Data

## Hooded Roof Ventilators

# 072

Prop Diameter = 72 in.	Maximum Motor Frame Size = 326
Fan Weight = 2450 lbs.	Tip Speed, FPM = 18.85 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 179.18    F (091) = 56.72	
Inlet & Outlet Diameter (Area) = 72.75 in. (28.87 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	34644	190	1.03	225	1.96	262	3.22	301	4.80	342	6.77						
	40418	221	1.64	251	2.69	282	4.00	314	5.57	348	7.44	383	9.67				
	46192	253	2.45	279	3.62	305	4.98	334	6.64	362	8.49	391	10.60	421	13.00		
	51966	284	3.49	308	4.79	331	6.25	355	7.94	381	9.86	405	11.90	431	14.30	485	19.70
	57740	316	4.78	337	6.21	358	7.79	379	9.34	402	11.50	424	13.70	446	15.90	493	21.20
	63514	348	6.37	367	7.91	386	9.61	405	11.40	425	13.40	445	15.70	466	18.10	507	23.30
	69288	379	8.27	397	9.93	414	11.80	432	13.70	449	15.70	468	18.00	486	20.50	524	25.80
	75062	411	10.50	426	12.30	443	14.30	459	16.30	476	18.40	491	20.60	509	23.20	543	28.70
80836	443	13.10	457	15.00	472	17.10	487	19.30	503	21.60	518	23.90	532	26.30			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	34644	277	1.09	343	2.25	404	3.74	459	5.47	509	7.39	555	9.56	597	11.90	676	17.40
	40418	324	1.73	380	3.03	434	4.63	485	6.48	532	8.51	575	10.70	616	13.10	691	18.50
	46192	370	2.58	420	4.03	467	5.72	513	7.68	557	9.85	599	12.20	638	14.60	710	20.00
	51966	416	3.67	461	5.28	504	7.11	546	9.16	585	11.40	625	13.90	661	16.40	731	22.00
	57740	462	5.04	503	6.81	542	8.76	579	10.90	617	13.30	653	15.80	668	18.50	754	24.30
	63514	509	6.71	546	8.63	581	10.70	616	13.00	650	15.40	684	18.10	716	20.90	780	27.00
	69288	555	8.71	589	10.80	622	13.00	654	15.40	686	18.00	717	20.70	748	23.70		
	75062	601	11.10	632	13.30	664	15.70	693	18.20	723	20.90	751	23.70	781	26.80		
80836	647	13.80	676	16.20	706	18.80	733	21.40	761	24.30	788	27.20					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

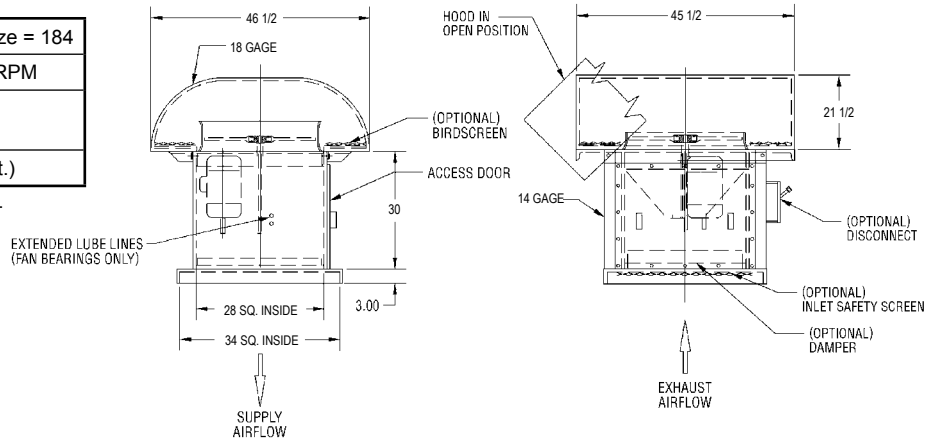
# Belt Drive Fan Data - HRB

## Hooded Roof Ventilators

# 024

Prop Diameter = 24 in.	Maximum Motor Frame Size = 184
Fan Weight = 250 lbs.	Tip Speed, FPM = 6.28 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 0.7397    F (091) = 0.253	
Inlet & Outlet Diameter (Area) = 24.25 in. (3.21 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	3852	569	0.12	674	0.22	786	0.36	902	0.53	1025	0.75						
	4494	664	0.18	754	0.30	847	0.44	943	0.62	1043	0.83						
	5136	759	0.27	837	0.40	916	0.55										
	5778	854	0.39	924	0.53	994	0.70	1067	0.88	1142	1.10	1216	1.33	1295	1.59	1455	2.19
	6420	949	0.53	1012	0.69	1075	0.87	1137	1.05	1205	1.28	1273	1.52	1339	1.77	1478	2.36
	7062	1044	0.71	1100	0.88	1157	1.07	1216	1.27	1274	1.49	1335	1.74	1397	2.01	1522	2.59
	7704	1139	0.92	1190	1.11	1243	1.31	1296	1.52	1348	1.75	1404	2.00	1459	2.28	1572	2.87
	8346	1234	1.17	1280	1.37	1330	1.59	1378	1.81	1428	2.05	1474	2.30	1528	2.58	1631	3.19
8988	1329	1.46	1372	1.67	1418	1.91	1463	2.15	1508	2.40	1553	2.66	1597	2.93			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	3852	811	0.11	993	0.23	1147	0.37	1281	0.53	1408	0.70	1526	0.89	1642	1.10	1878	1.59
	4494	947	0.17	1108	0.31	1246	0.46	1371	0.64	1485	0.82	1597	1.02	1699	1.23	1898	1.70
	5136	1082	0.26	1227	0.41	1352	0.58	1467	0.77	1576	0.97	1675	1.18	1774	1.40	1955	1.88
	5778	1217	0.37	1348	0.54	1462	0.72	1571	0.92	1671	1.14	1767	1.36	1856	1.60	2031	2.10
	6420	1352	0.50	1472	0.69	1579	0.89	1678	1.10	1773	1.33	1862	1.57	1949	1.82	2108	2.35
	7062	1487	0.67	1598	0.87	1697	1.09	1788	1.31	1878	1.56	1964	1.82	2044	2.08	2199	2.64
	7704	1623	0.87	1725	1.09	1818	1.32	1904	1.56	1986	1.82	2068	2.09	2146	2.37	2293	2.96
	8346	1758	1.10	1853	1.34	1940	1.59	2023	1.85	2099	2.12	2175	2.40	2250	2.70		
8988	1893	1.38	1982	1.64	2064	1.90	2142	2.18	2216	2.46	2285	2.75	2357	3.06			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

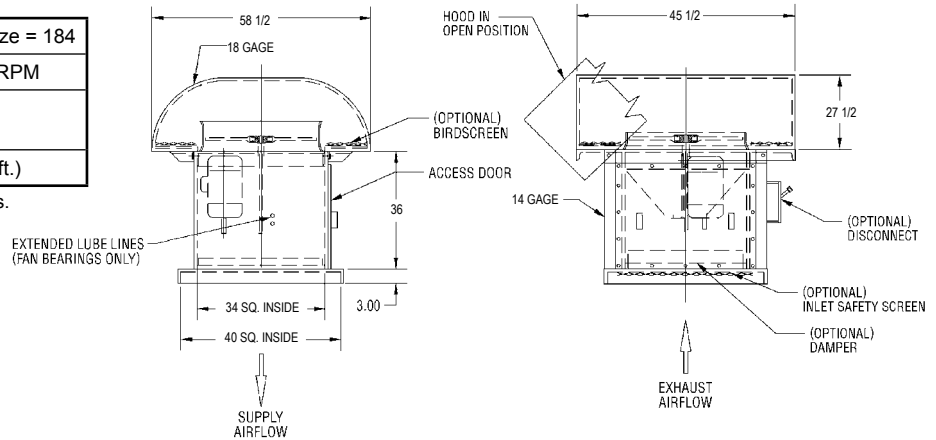
# HRB - Belt Drive Fan Data

## Hooded Roof Ventilators

# 027

Prop Diameter = 27 in.	Maximum Motor Frame Size = 184
Fan Weight = 350 lbs.	Tip Speed, FPM = 7.07 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 1.333    F (091) = 0.456	
Inlet & Outlet Diameter (Area) = 27.28 in. (4.06 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	4872	506	0.15	599	0.28	699	0.45	801	0.67	911	0.95	1021	1.36				
	5684	590	0.23	670	0.38	753	0.56	838	0.78	927	1.05						
	6496	674	0.34	744	0.51	814	0.70	890	0.93	965	1.19	1042	1.49	1122	1.83		
	7308	759	0.49	821	0.67	883	0.88	948	1.12	1015	1.39	1081	1.68	1151	2.01	1293	2.78
	8120	843	0.67	899	0.87	955	1.10	1010	1.33	1071	1.62	1131	1.92	1190	2.24	1314	2.98
	8932	927	0.90	978	1.11	1028	1.35	1080	1.61	1132	1.89	1186	2.20	1242	2.54	1352	3.28
	9744	1012	1.16	1057	1.40	1105	1.65	1152	1.93	1198	2.21	1247	2.53	1296	2.88	1397	3.63
	10556	1096	1.48	1137	1.73	1182	2.01	1224	2.29	1266	2.59	1310	2.90	1357	3.27	1449	4.04
11368	1180	1.85	1219	2.11	1260	2.41	1299	2.71	1340	3.03	1380	3.36	1419	3.70			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	4872	721	0.14	862	0.29	1019	0.47	1138	0.67	1252	0.89	1356	1.13	1459	1.39	1669	2.01
	5684	841	0.22	984	0.39	1107	0.59	1219	0.80	1320	1.04	1419	1.29	1510	1.56	1687	2.16
	6496	961	0.32	1090	0.52	1201	0.73	1304	0.97	1400	1.22	1488	1.49	1577	1.77	1738	2.38
	7308	1081	0.46	1198	0.68	1299	0.91	1396	1.16	1485	1.44	1570	1.72	1650	2.02	1805	2.66
	8120	1201	0.63	1308	0.87	1403	1.12	1491	1.39	1575	1.69	1654	1.99	1732	2.31	1874	2.97
	8932	1321	0.84	1419	1.10	1508	1.38	1589	1.66	1669	1.97	1745	2.30	1816	2.63	1954	3.33
	9744	1441	1.10	1532	1.38	1615	1.67	1692	1.98	1765	2.30	1838	2.64	1907	3.00	2038	3.74
	10556	1562	1.39	1646	1.70	1724	2.01	1797	2.34	1865	2.67	1933	3.03	2000	3.41		
11368	1682	1.74	1761	2.07	1834	2.40	1903	2.75	1969	3.11	2031	3.47	2094	3.87			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

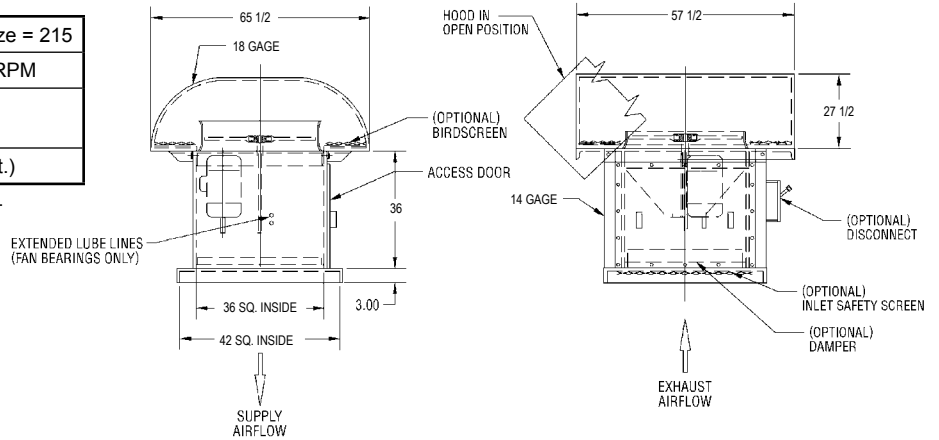
# Belt Drive Fan Data - HRB

## Hooded Roof Ventilators

# 030

Prop Diameter = 30 in.	Maximum Motor Frame Size = 215
Fan Weight = 400 lbs.	Tip Speed, FPM = 7.85 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 2.06    F (091) = 0.73	
Inlet & Outlet Diameter (Area) = 30.31 in. (5.01 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	6060	459	0.18	543	0.35	633	0.56	726	0.84	826	1.18	936	1.64	1016	2.15		
	7070	535	0.29	608	0.47	683	0.70	760	0.97	840	1.30	926	1.69	1016	2.15		
	8080	612	0.43	674	0.64	738	0.87	807	1.16	874	1.48	945	1.86	1017	2.27		
	9090	688	0.61	738	0.84	801	1.10	859	1.39	920	1.73	980	2.09	1043	2.50	1172	3.45
	10100	764	0.84	815	1.09	866	1.36	916	1.66	971	2.01	1025	2.39	1079	2.78	1191	3.71
	11470	829	1.12	887	1.39	932	1.68	979	2.00	1026	2.35	1136	2.74	1125	3.15	1225	4.08
	12120	918	1.45	959	1.74	1002	2.06	1045	2.40	1086	2.75	1131	3.15	1175	3.58	1266	4.51
	13130	994	1.84	1031	2.16	1072	2.50	1110	2.85	1149	3.23	1188	3.61	1230	4.06	1313	5.02
14140	1070	2.30	1106	2.63	1142	3.00	1178	3.38	1215	3.77	1251	4.18	1286	4.60			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	6060	654	0.17	800	0.36	923	0.58	1031	0.83	1134	1.11	1229	1.41	1323	1.73	1512	2.50
	7070	762	0.27	892	0.49	1004	0.73	1105	1.00	1196	1.29	1286	1.61	1368	1.94	1529	2.68
	8080	872	0.40	989	0.65	1089	0.91	1182	1.20	1269	1.52	1349	1.85	1429	2.20	1575	2.96
	9090	980	0.57	1086	0.84	1178	1.13	1266	1.45	1346	1.79	1424	2.14	1495	2.51	1636	3.31
	10100	1089	0.79	1186	1.09	1272	1.40	1352	1.73	1428	2.10	1500	2.48	1570	2.86	1698	3.69
	11110	1198	1.05	1287	1.37	1368	1.72	1441	2.07	1513	2.45	1582	2.86	1646	3.27	1772	4.15
	12120	1307	1.37	1389	1.72	1464	2.08	1534	2.46	1600	2.86	1666	3.29	1728	3.73	1847	4.65
	13130	1416	1.74	1492	2.11	1563	2.50	1630	2.91	1691	3.33	1752	3.77	1812	4.24		
	14140	1525	2.17	1597	2.57	1663	2.99	1725	3.42	1785	3.87	1841	4.32	1898	4.81		

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

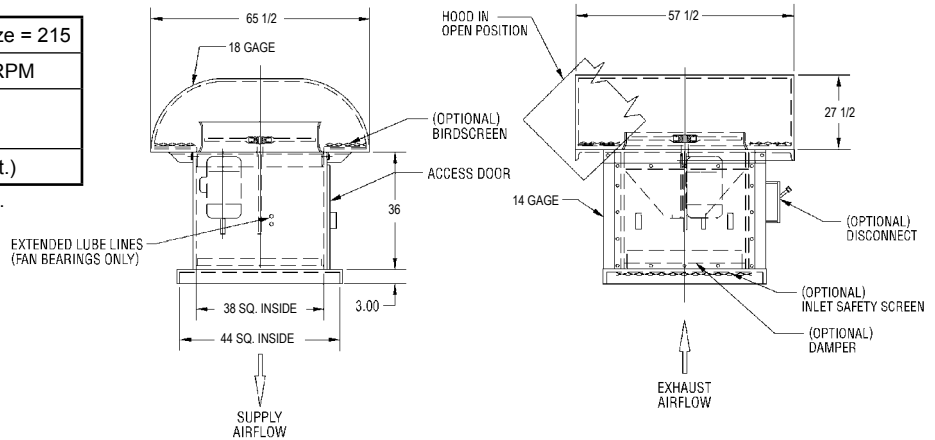
# HRB - Belt Drive Fan Data

## Hooded Roof Ventilators

# 032

Prop Diameter = 32 in.	Maximum Motor Frame Size = 215
Fan Weight = 450 lbs.	Tip Speed, FPM = 8.38 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 3.117    F (091) = 1.066	
Inlet & Outlet Diameter (Area) = 32.33 in. (5.70 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	6852	427	0.20	506	0.39	590	0.64	676	0.95	769	1.34						
	7994	499	0.33	566	0.53	636	0.79	708	1.10	782	1.47	862	1.91	946	2.43		
	9136	570	0.49	628	0.72	688	0.99	751	1.31	814	1.68	880	2.10	947	2.57		
	10278	641	0.69	683	0.95	746	1.24	800	1.57	857	1.95	912	2.36	971	2.83	1091	3.90
	11420	712	0.95	759	1.23	806	1.54	853	1.88	904	2.27	955	2.70	1005	3.15	1109	4.19
	12562	763	1.26	826	1.57	868	1.90	912	2.26	956	2.66	1102	3.10	1048	3.57	1141	4.61
	13704	855	1.64	893	1.97	933	2.33	973	2.71	1011	3.11	1053	3.56	1095	4.05	1180	5.10
	14846	926	2.08	961	2.44	998	2.83	1034	3.23	1071	3.65	1106	4.09	1146	4.60	1223	5.68
15988	997	2.60	1030	2.98	1064	3.39	1068	3.82	1132	4.27	1165	4.73	1198	5.21			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	6852	609	0.19	745	0.40	860	0.66	961	0.94	1056	1.25	1145	1.59	1232	1.96	1408	2.82
	7994	710	0.31	831	0.55	935	0.83	1029	1.13	1114	1.46	1198	1.82	1274	2.19	1424	3.03
	9136	812	0.46	921	0.73	1014	1.03	1101	1.36	1182	1.72	1257	2.09	1331	2.49	1467	3.35
	10278	913	0.65	1012	0.95	1097	1.28	1179	1.64	1253	2.02	1326	2.42	1393	2.84	1523	3.74
	11420	1015	0.89	1105	1.23	1185	1.58	1259	1.96	1330	2.37	1397	2.80	1462	3.24	1581	4.17
	12562	1116	1.19	1199	1.55	1274	1.94	1342	2.34	1409	2.77	1473	3.23	1533	3.70	1650	4.69
	13704	1218	1.55	1294	1.94	1364	2.35	1429	2.78	1490	3.23	1552	3.72	1610	4.22	1720	5.26
	14846	1319	1.97	1390	2.39	1456	2.83	1518	3.29	1575	3.77	1632	4.27	1688	4.80		
15988	1421	2.45	1487	2.91	1549	3.38	1607	3.87	1663	4.38	1715	4.89	1768	5.45			

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

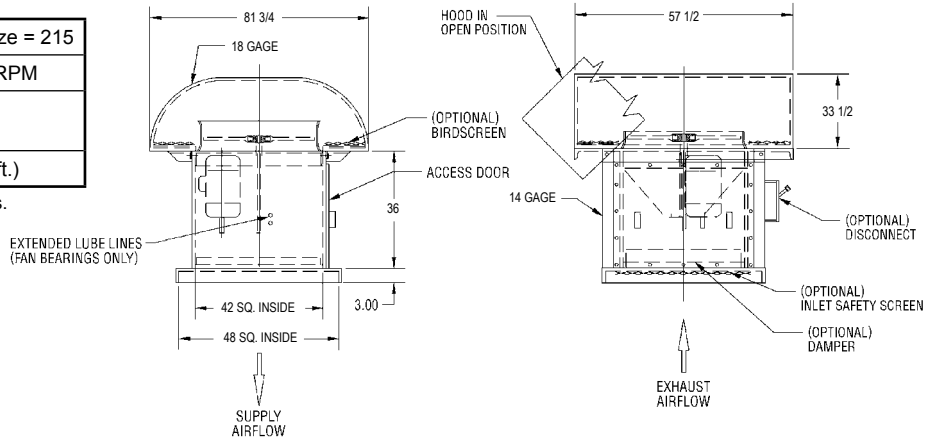
# Belt Drive Fan Data - HRB

## Hooded Roof Ventilators

# 036

Prop Diameter = 36 in.	Maximum Motor Frame Size = 215
Fan Weight = 640 lbs.	Tip Speed, FPM = 9.42 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 5.611    F (091) = 1.775	
Inlet & Outlet Diameter (Area) = 36.38 in. (7.72 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	8664	379	0.26	449	0.49	524	0.81	601	1.20	683	1.69						
	10108	443	0.41	503	0.67	565	1.00	629	1.39	695	1.86	766	2.42	841	3.08		
	11552	506	0.61	558	0.91	611	1.24	667	1.66	724	2.12	782	2.65	842	3.25		
	12996	569	0.87	616	1.20	663	1.56	711	1.99	761	2.47	811	2.99	863	3.58	970	4.93
	14440	632	1.20	674	1.55	716	1.95	758	2.37	803	2.87	849	3.42	893	3.99	985	5.31
	15884	695	1.59	733	1.98	771	2.40	810	2.86	849	3.36	890	3.92	931	4.52	1014	5.83
	17328	759	2.07	793	2.48	829	2.94	864	3.43	898	3.93	936	4.50	972	5.12	1048	6.45
	18772	822	2.63	853	3.07	887	3.57	918	4.08	951	4.62	983	5.16	1018	5.81	1087	7.18
20216	885	3.29	914	3.76	945	4.29	975	4.83	1005	5.39	1035	5.98	1065	6.58			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	8664	555	0.27	686	0.56	807	0.94	918	1.37	1018	1.85	1110	2.39	1195	2.98	1352	4.34
	10108	647	0.43	761	0.76	868	1.16	970	1.62	1064	2.13	1150	2.67	1232	3.28	1382	4.62
	11552	740	0.65	840	1.01	934	1.43	1027	1.92	1115	2.46	1197	3.04	1276	3.65	1420	5.01
	12996	832	0.92	923	1.32	1008	1.78	1091	2.29	1171	2.85	1250	3.47	1323	4.11	1462	5.49
	14440	925	1.26	1007	1.70	1084	2.19	1159	2.73	1235	3.32	1305	3.95	1377	4.64	1509	6.08
	15884	1017	1.68	1092	2.16	1162	2.68	1233	3.25	1300	3.86	1369	4.53	1433	5.22	1560	6.75
	17328	1110	2.18	1178	2.70	1244	3.26	1309	3.86	1372	4.50	1434	5.19	1496	5.92		
	18772	1202	2.77	1265	3.33	1327	3.93	1386	4.56	1446	5.24	1503	5.94	1561	6.70		
20216	1295	3.46	1353	4.06	1412	4.70	1467	5.36	1522	6.07	1577	6.81					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

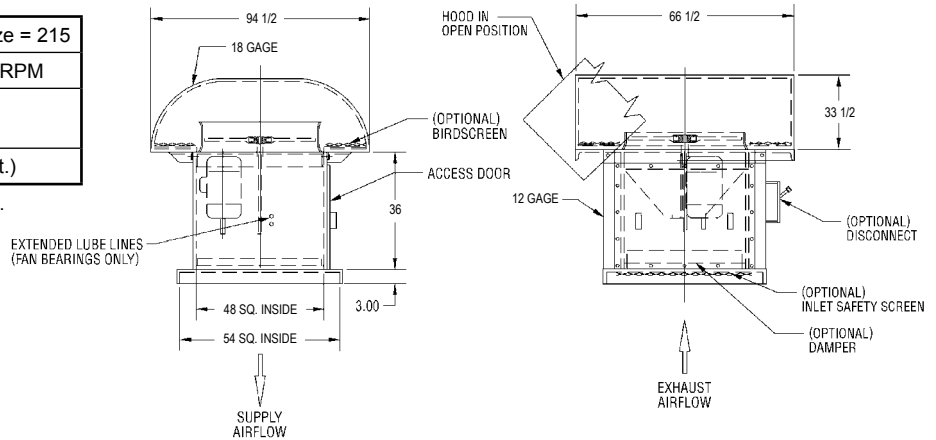
# HRB - Belt Drive Fan Data

## Hooded Roof Ventilators

# 042

Prop Diameter = 42 in.	Maximum Motor Frame Size = 215
Fan Weight = 800 lbs.	Tip Speed, FPM = 11.00 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 12.119    F (091) = 3.836	
Inlet & Outlet Diameter (Area) = 42.44 in. (9.82 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	11784	325	0.35	385	0.67	449	1.10	515	1.63	586	2.30						
	13748	379	0.56	431	0.92	484	1.36	539	1.90	596	2.53	657	3.29				
	15712	433	0.83	476	1.23	523	1.69	572	2.26	620	2.89	670	3.61				
	17676	488	1.19	527	1.63	568	2.12	609	2.70	652	3.35	695	4.06	740	4.86	831	6.71
	19640	542	1.63	578	2.11	614	2.65	649	3.22	688	3.91	727	4.65	765	5.42	844	7.22
	21804	596	2.16	628	2.69	661	3.27	694	3.89	728	4.56	762	5.33	798	6.14	869	7.93
	23568	650	2.81	679	3.38	710	4.00	740	4.66	770	5.34	802	6.12	833	6.96	898	8.77
	25532	704	3.57	731	4.18	760	4.85	787	5.54	815	6.27	842	7.02	872	7.90	931	9.76
	27496	758	4.46	783	5.11	810	5.82	835	6.56	861	7.33	887	8.12	912	8.95		

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	11784	475	0.37	588	0.76	692	1.27	787	1.86	872	2.51	951	3.25	1024	4.06	1158	5.91
	13748	555	0.59	652	1.03	744	1.57	831	2.20	911	2.90	986	3.63	1056	4.46	1184	6.28
	15712	634	0.88	720	1.37	801	1.95	880	2.61	956	3.35	1028	4.14	1093	4.97	1217	6.82
	17676	713	1.25	790	1.80	864	2.42	935	3.12	1003	3.88	1071	4.72	1134	5.59	1253	7.47
	19640	792	1.71	862	2.31	929	2.98	993	3.71	1058	4.52	1119	5.38	1180	6.31	1293	8.28
	21604	871	2.28	935	2.93	996	3.64	1056	4.42	1114	5.25	1173	6.16	1228	7.10	1337	9.17
	23568	951	2.96	1009	3.67	1066	4.43	1121	5.25	1175	6.12	1229	7.06	1282	8.05		
	25532	1030	3.76	1084	4.52	1137	5.34	1187	6.19	1239	7.12	1288	8.07	1338	9.11		
	27456	1109	4.70	1159	5.51	1209	6.39	1256	7.28	1304	8.25	1351	9.26				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

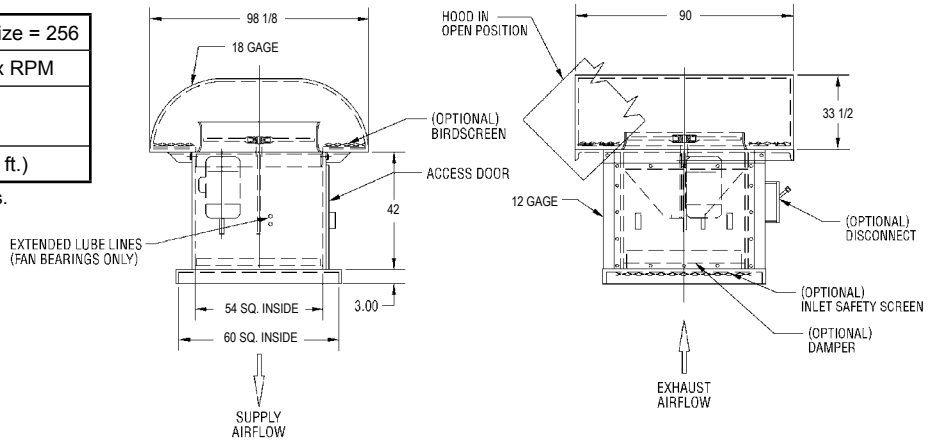
# Belt Drive Fan Data - HRB

## Hooded Roof Ventilators

# 048

Prop Diameter = 48 in.	Maximum Motor Frame Size = 256
Fan Weight = 1050 lbs.	Tip Speed, FPM = 12.57 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 23.63    F (091) = 7.48	
Inlet & Outlet Diameter (Area) = 48.50 in. (12.83 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	15396	264	0.46	337	0.87	393	1.43	451	2.13	512	3.01						
	17962	332	0.73	377	1.20	423	1.78	472	2.48	522	3.31						
	20528	379	1.09	418	1.61	458	2.21	500	2.95	543	3.77						
	23094	427	1.55	462	2.13	497	2.78	533	3.53	571	4.38	608	5.31	647	6.35	727	8.77
	25660	474	2.13	506	2.76	537	3.46	568	4.21	602	5.11	636	6.07	669	7.09	739	9.43
	28226	522	2.83	550	3.52	578	4.27	607	5.08	637	5.96	667	6.96	698	8.02	761	10.40
	30792	569	3.67	595	4.41	621	5.23	648	6.08	674	6.98	702	8.00	729	9.09	786	11.50
	33358	616	4.67	640	5.46	665	6.34	689	7.24	713	8.20	737	9.17	763	10.30	815	12.80
	35924	664	5.83	685	6.68	709	7.61	731	8.57	754	9.58	776	10.60	798	11.70		

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	15396	416	0.48	514	1.00	605	1.66	689	2.43	763	3.26	832	4.25	896	5.31	1014	7.71
	17982	485	0.77	571	1.35	651	2.06	727	2.86	798	3.78	863	4.75	924	5.83	1036	8.20
	20528	555	1.15	630	1.79	701	2.54	770	3.41	836	4.38	898	5.41	957	6.49	1065	8.91
	23094	624	1.63	692	2.35	756	3.16	818	4.07	878	5.07	937	6.17	992	7.31	1096	9.76
	25660	693	2.24	755	3.02	813	3.89	869	4.84	926	5.91	979	7.02	1032	8.24	1132	10.80
	28226	763	2.98	819	3.83	871	4.76	925	5.78	975	6.86	1028	8.05	1074	9.28	1170	12.00
	30792	832	3.87	883	4.79	933	5.79	981	6.86	1026	8.00	1075	9.22	1122	10.50		
	33358	901	4.92	948	5.91	995	6.98	1039	8.09	1064	9.31	1127	10.50	1171	11.90		
	35924	971	6.14	1015	7.20	1058	8.35	1100	9.52	1141	10.80	1182	12.10				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

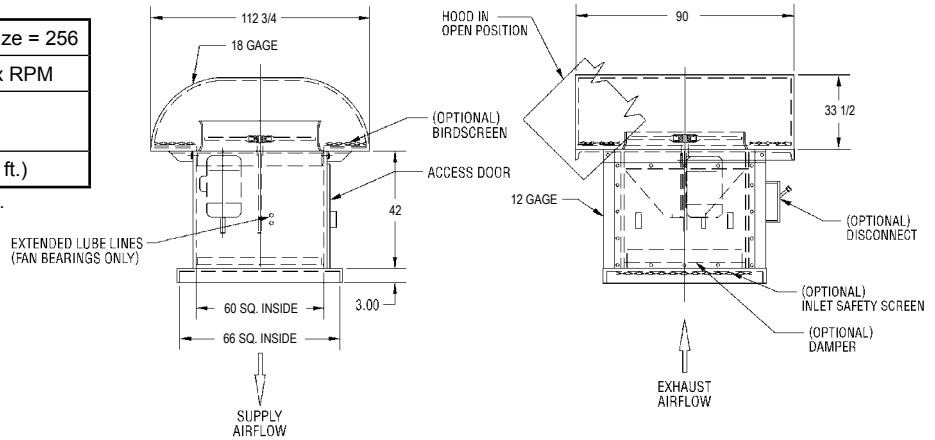
# HRB - Belt Drive Fan Data

## Hooded Roof Ventilators

# 054

Prop Diameter = 54 in.	Maximum Motor Frame Size = 256
Fan Weight = 1150 lbs.	Tip Speed, FPM = 14.14 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 42.58 F (091) = 13.48	
Inlet & Outlet Diameter (Area) = 54.56 in. (16.24 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	19488	253	0.58	299	1.10	349	1.81	401	2.70	455	3.81						
	22736	295	0.92	335	1.52	376	2.25	419	3.14	464	4.19	511	5.44				
	25984	337	1.38	372	2.04	407	2.80	445	3.73	482	4.77	521	5.96	561	7.31		
	29232	379	1.96	410	2.69	442	3.51	474	4.46	507	5.54	540	6.72	575	8.04	647	11.10
	32480	421	2.69	449	3.49	477	4.38	505	5.33	535	6.47	566	7.68	595	8.97	657	11.90
	35728	464	3.58	489	4.45	514	5.41	540	6.43	566	7.44	593	8.81	621	10.20	676	13.10
	38976	506	4.65	529	5.59	552	6.62	576	7.70	599	8.84	624	10.10	648	11.50	699	14.50
	42224	548	5.91	569	6.91	591	8.02	612	9.17	634	10.40	655	11.60	679	13.10	725	16.10
45472	590	7.39	609	8.46	630	9.64	650	10.80	670	12.10	690	13.40	710	14.80			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	19488	370	0.61	457	1.27	538	2.10	612	3.08	678	4.15	740	5.38	797	6.71	901	9.76
	22736	431	0.97	507	1.71	579	2.60	646	3.64	709	4.79	767	6.01	822	7.38	921	10.40
	25984	493	1.45	560	2.27	623	3.22	684	4.32	743	5.54	798	6.85	850	8.22	947	11.30
	29232	555	2.07	615	2.97	672	4.00	727	5.15	780	6.41	833	7.80	882	9.25	974	12.30
	32480	616	2.83	671	3.83	723	4.93	773	6.13	823	7.48	870	8.89	918	10.40	1006	13.70
	35728	678	3.77	728	4.86	775	6.02	822	7.32	867	8.69	912	10.20	955	11.80	1040	15.20
	38976	740	4.90	765	6.07	829	7.33	872	8.68	914	10.10	956	11.70	997	13.30		
	42224	801	6.23	843	7.49	885	8.84	924	10.20	964	11.80	1002	13.40	1041	15.10		
45472	863	7.78	902	9.12	941	10.60	977	12.10	1015	13.70	1051	15.30					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

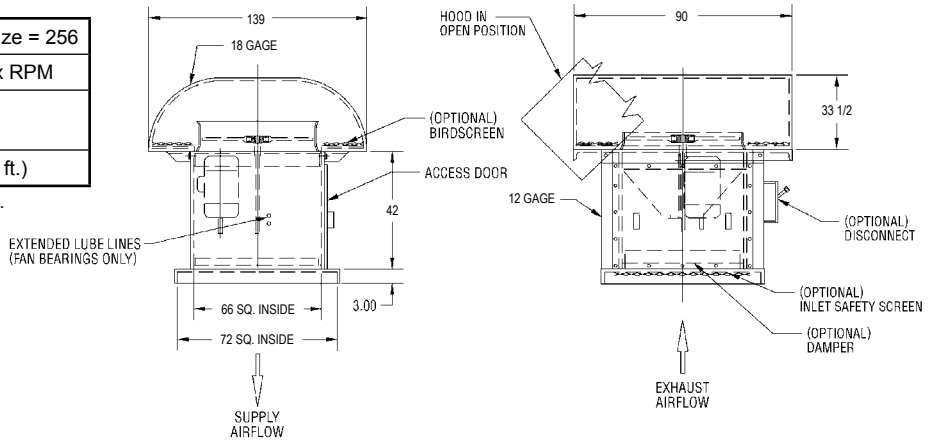
# Belt Drive Fan Data - HRB

## Hooded Roof Ventilators

# 060

Prop Diameter = 60 in.	Maximum Motor Frame Size = 256
Fan Weight = 1550 lbs.	Tip Speed, FPM = 15.71 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup> F (097) = 71.96    F (091) = 22.78	
Inlet & Outlet Diameter (Area) = 60.63 in. (20.05 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	24060	226	0.72	269	1.36	314	2.24	361	3.33	410	4.70						
	28070	266	1.14	302	1.87	339	2.78	377	3.87	417	5.17	460	6.71				
	32080	303	1.70	335	2.52	366	3.46	400	4.61	434	5.89	469	7.36	505	9.03		
	36090	341	2.42	369	3.33	397	4.34	427	5.51	457	6.85	486	8.29	518	9.93	582	13.70
	40100	379	3.32	404	4.31	430	5.41	454	6.58	482	7.98	509	9.49	536	11.10	591	14.70
	44110	417	4.42	440	5.50	463	6.67	486	7.94	509	9.32	534	10.90	559	12.50	608	16.20
	48120	455	5.74	476	6.90	497	8.17	518	9.51	539	10.90	561	12.50	583	14.20	629	17.90
	52130	493	7.30	512	8.53	532	9.91	551	11.30	571	12.80	589	14.30	611	16.10	652	19.90
56140	531	9.12	548	10.40	567	11.90	585	13.40	603	15.00	621	16.60	639	18.30			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	24080	333	0.76	411	1.56	484	2.60	551	3.80	611	5.13	666	6.64	717	8.29	811	12.10
	28070	388	1.20	457	2.11	521	3.21	582	4.50	636	5.91	690	7.42	739	9.11	829	12.80
	32080	444	1.79	504	2.80	561	3.97	616	5.33	669	6.84	718	8.45	765	10.10	852	13.90
	36090	499	2.55	553	3.67	605	4.94	655	6.36	702	7.92	750	9.64	794	11.40	877	15.20
	40100	555	3.50	604	4.73	650	6.08	695	7.57	741	9.23	783	11.00	826	12.90	905	16.90
	44110	610	4.66	655	5.99	697	7.43	740	9.04	780	10.70	821	12.60	859	14.50	936	18.70
	48120	666	6.05	707	7.49	746	9.05	785	10.70	823	12.50	860	14.40	897	16.40		
	52130	721	7.69	759	9.23	796	10.90	831	12.60	868	14.50	902	16.50	937	18.60		
	56140	777	9.60	812	11.30	847	13.00	880	14.90	913	16.90	946	18.90				

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

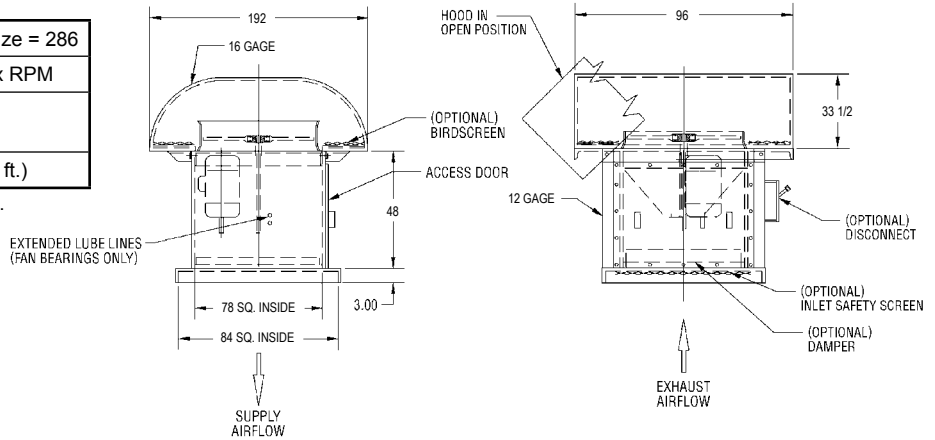
# HRB - Belt Drive Fan Data

## Hooded Roof Ventilators

# 072

Prop Diameter = 72 in.	Maximum Motor Frame Size = 286
Fan Weight = 2300 lbs.	Tip Speed, FPM = 18.85 x RPM
Maximum BHP = F (RPM/1000) <sup>3</sup>	
F (097) = 179.18    F (091) = 56.72	
Inlet & Outlet Diameter (Area) = 72.75 in. (28.87 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
097*	34644	190	1.03	225	1.96	262	3.22	301	4.80	342	6.77						
	40418	221	1.64	251	2.69	282	4.00	314	5.57	348	7.44	383	9.67				
	46192	253	2.45	279	3.62	305	4.98	334	6.64	362	8.49	391	10.60	421	13.00		
	51966	284	3.49	308	4.79	331	6.25	355	7.94	381	9.86	405	11.90	431	14.30	485	19.70
	57740	316	4.78	337	6.21	358	7.79	379	9.34	402	11.50	424	13.70	446	15.90	493	21.20
	63514	348	6.37	367	7.91	386	9.61	405	11.40	425	13.40	445	15.70	466	18.10	507	23.30
	69288	379	8.27	397	9.93	414	11.80	432	13.70	449	15.70	468	18.00	486	20.50	524	25.80
	75062	411	10.50	426	12.30	443	14.30	459	16.30	476	18.40	491	20.60	509	23.20	543	28.70
80836	443	13.10	457	15.00	472	17.10	487	19.30	503	21.60	518	23.90	532	26.30			

PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	34644	277	1.09	343	2.25	404	3.74	459	5.47	509	7.39	555	9.56	597	11.90	676	17.40
	40418	324	1.73	380	3.03	434	4.63	485	6.48	532	8.51	575	10.70	616	13.10	691	18.50
	46192	370	2.58	420	4.03	467	5.72	513	7.68	557	9.85	599	12.20	638	14.60	710	20.00
	51966	416	3.67	461	5.28	504	7.11	546	9.16	585	11.40	625	13.90	661	16.40	731	22.00
	57740	462	5.04	503	6.81	542	8.76	579	10.90	617	13.30	653	15.80	668	18.50	754	24.30
	63514	509	6.71	546	8.63	581	10.70	616	13.00	650	15.40	684	18.10	716	20.90	780	27.00
	69288	555	8.71	589	10.80	622	13.00	654	15.40	686	18.00	717	20.70	748	23.70		
	75062	601	11.10	632	13.30	664	15.70	693	18.20	723	20.90	751	23.70	781	26.80		
80836	647	13.80	676	16.20	706	18.80	733	21.40	761	24.30	788	27.20					

- Notes:**
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.
- \* 091 and 097 wheels are suitable for exhaust or supply applications, however, 097 wheels are NOT reversible. For reversible flow, select a 091 wheel and add .39 VP loss for equal airflow in both directions.

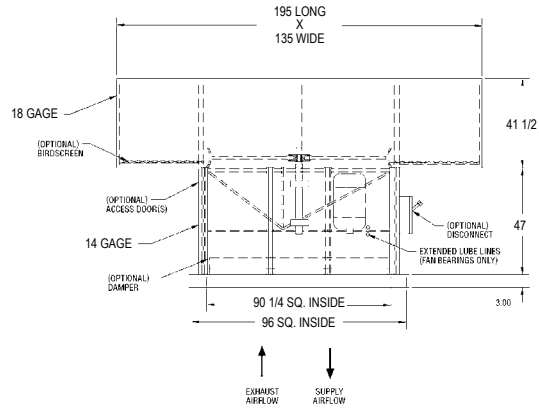
# Belt Drive Fan Data - HTB

(Large T-Hood) Hooded Roof Ventilators

## 084

Prop Diameter = 84 in.	Maximum Motor Frame Size = 445
Fan Weight = 3600 lbs.	Tip Speed, FPM = 21.99 x RPM
Maximum BHP = 122.52 (RPM/1000) <sup>3</sup>	
Inlet & Outlet Diameter (Area) = 84.88 in. (39.29 sq. ft.)	

Approximate fan weights are less motor and accessories.

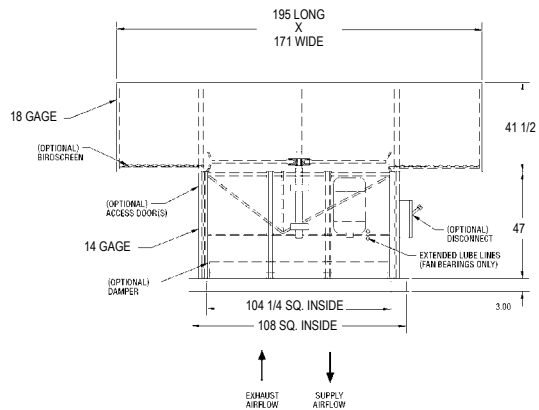


PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	47148	238	1.48	294	3.06	346	5.09	393	7.45	436	10.10	476	13.00	512	16.20	579	23.60
	55006	277	2.35	326	4.13	372	6.30	415	8.82	456	11.60	493	14.50	528	17.80	592	25.10
	62864	317	3.51	360	5.48	400	7.78	440	10.40	478	13.40	513	16.60	547	19.90	608	27.30
	70722	357	5.00	395	7.19	432	9.67	468	12.50	502	15.50	536	18.90	567	22.40	626	29.90
	78580	396	6.85	431	9.26	464	11.90	497	14.80	529	18.10	559	21.50	590	25.20	647	33.10
	86438	436	9.12	466	11.70	498	14.60	528	17.70	557	21.00	586	24.70	614	28.40	668	36.70
	94296	475	11.80	505	14.70	533	17.70	561	21.00	588	24.50	614	28.20	641	32.22		
	102154	515	15.10	542	18.10	569	21.40	594	24.80	620	28.50	644	32.30	669	36.50		
	110012	555	18.80	580	22.10	605	25.60	628	29.20	652	33.00	676	37.10				

## 096

Prop Diameter = 96 in.	Maximum Motor Frame Size = 445
Fan Weight = 4000 lbs.	Tip Speed, FPM = 25.13 x RPM
Maximum BHP = 29.85 (RPM/500) <sup>3</sup>	
Inlet & Outlet Diameter (Area) = 97.00 in. (51.32 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	61584	208	1.93	257	4.00	303	6.65	344	9.73	382	13.10	416	17.00	448	21.20	507	30.00
	71848	243	3.07	285	5.39	326	8.23	364	11.50	399	15.10	431	19.00	462	23.30	518	32.80
	82112	277	4.58	315	7.16	350	10.20	385	13.60	418	17.50	449	21.60	478	26.00	532	35.60
	92376	312	6.53	346	9.39	378	12.60	409	16.30	439	20.30	469	24.70	496	29.20	548	39.00
	102640	347	8.95	377	12.10	406	15.60	435	19.40	463	23.60	489	28.10	516	33.00	566	43.20
	112904	381	11.90	409	15.30	436	19.00	462	23.10	488	27.50	513	32.20	537	37.10	585	48.00
	123168	416	15.50	442	19.20	466	23.20	491	27.40	514	32.00	538	36.90	561	42.10		
	133432	451	19.70	474	23.60	498	27.90	520	32.40	542	37.20	563	42.20	585	47.60		
	143696	485	24.60	507	28.80	529	33.40	550	38.10	571	43.10	591	48.40				

- Notes:
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.

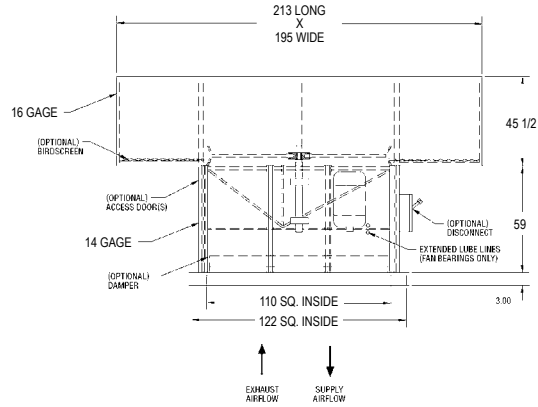
# HTB - Belt Drive Fan Data

## Hooded Roof Ventilators (Large T-Hood)

# 108

Prop Diameter = 108 in.	Maximum Motor Frame Size = 445
Fan Weight = 4500 lbs.	Tip Speed, FPM = 28.27 x RPM
Maximum BHP = 53.79 (RPM/500) <sup>3</sup>	
Inlet & Outlet Diameter (Area) = 109.125 in. (64.95 sq. ft.)	

Approximate fan weights are less motor and accessories.

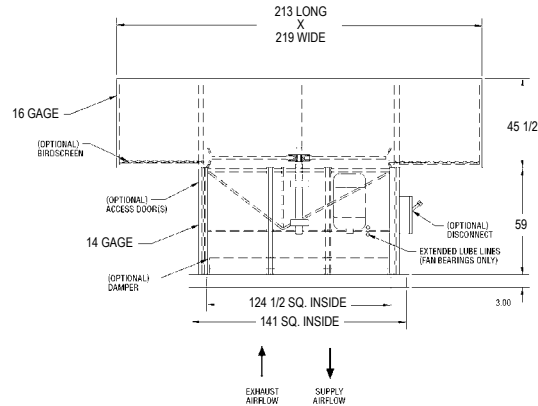


PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	77940	185	2.45	229	5.06	269	8.42	306	12.30	339	16.60	370	21.50	398	26.90	451	39.00
	90930	216	3.89	254	6.82	289	10.40	323	14.60	354	19.20	383	24.00	411	29.50	461	41.50
	103920	247	5.80	280	9.06	311	12.90	342	17.30	372	22.20	399	27.40	425	32.90	473	45.10
	116910	277	8.26	307	11.90	336	16.00	364	20.60	390	25.70	417	31.20	441	37.00	487	49.40
	129900	308	11.30	335	15.30	361	19.70	386	24.50	411	29.90	435	35.60	459	41.70	503	54.70
	142890	339	15.10	364	19.40	387	24.10	411	29.30	433	34.70	456	40.80	477	47.00	520	60.70
	155880	370	19.60	393	24.30	415	29.30	436	34.70	457	40.50	478	46.70	499	53.30		
	168870	401	24.90	421	29.90	442	35.30	462	41.00	482	47.10	501	53.40	520	60.30		
	181860	431	31.10	451	36.50	470	42.30	489	48.20	507	54.60	526	61.30				

# 120

Prop Diameter = 120 in.	Maximum Motor Frame Size = 445
Fan Weight = 5400 lbs.	Tip Speed, FPM = 31.42 x RPM
Maximum BHP = 91.09 (RPM/500) <sup>3</sup>	
Inlet & Outlet Diameter (Area) = 121.25 in. (80.18 sq. ft.)	

Approximate fan weights are less motor and accessories.



PROP	CFM	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
091	96216	122	1.75	162	4.77	210	9.92										
	112252	142	2.78	176	6.08	212	10.70	259	18.80								
	128288	163	4.16	192	7.78	223	12.40	257	18.40								
	144324	183	5.92	209	9.87	236	14.70	264	20.70	296	28.20						
	160360	203	8.12	227	12.40	251	17.50	276	23.50	301	30.50	331	39.40				
	176396	223	10.80	245	15.40	267	20.80	289	27.00	311	33.90	336	42.00	363	51.80		
	192432	244	14.00	263	19.00	284	24.70	304	31.00	324	38.20	345	46.10	367	55.00		
	208468	264	17.80	282	23.10	301	29.20	319	35.80	338	43.10	357	51.00	376	59.80	419	80.20
	224504	284	22.30	301	27.90	318	34.30	336	41.30	353	48.60	370	56.80	388	65.50	425	85.50

- Notes:
- 1) Performance shown is for Installation Type A: free inlet, free outlet.
  - 2) Performance ratings do not include the effects of appurtenances in the airstream.
  - 3) Power rating (BHP) does not include drive losses.

# Sample Specifications - HRD/HRR/HRB

## Hooded Roof Ventilator

- 1.1 Fans shall be tested and rated in accordance with AMCA air and sound methods and standards.
- 1.2 Fans shall conform to AMCA 99 standards.
- 1.3 All motors and electrical components shall comply with NEMA, UL or other governing body.
- 1.4 Fan performance rating shall be based on methods as developed by AMCA standard 210.
- 1.5 Form, function and application of the fan shall be as defined by ASHRAE, AMCA and SMACNA in regard to air system design in compatibility with the fan.

### Direct Drive - HRD

#### PRODUCT

- 2.1 The fan shall be of an axial flow propeller, panel fan mount, direct drive configuration.
- 2.2 The fan shall be direct drive with the propeller mounted directly to the motor shaft.
- 2.3 The fan housing shall be of heavy gage sheet steel and shall support a steel spun panel, which shall allow for smooth flow into the propeller.
- 2.3.1 The fan panel shall have an integrally spun, deep shroud for smooth air entry into the propeller.
- 2.4 The fan's motor support and mounting structure shall be fabricated of heavy steel plate.
- 2.5 The propeller shall consist of 6 blades affixed directly to a precision cast or machined hub assembly. The hub is designed to incorporate a taper lock bushing and is keyed directly to the motor shaft.
- 2.6 The incorporated panel fan assembly and curb cap shall be coated with an air dry enamel. The hood and side sheets shall be manufactured of galvanized sheet steel. Galvanized and aluminum parts are to remain uncoated.
- 2.7 The hood shall be supported and attached by means of heavy angle iron supports. Hoods shall be lockseam constructed for weatherproof service and designed to reduce sagging under heavy snow loading.
- 2.8 One side of the housing shall be removable for access to interior components.
- 2.9 The final complete fan assembly shall be vibration tested and mechanically balanced as per AMCA 204 Grade BV-3 / ANSI S2.19 G 6.3 and the results recorded on a label placed on the fan assembly.
- 2.10 The motor shall be of a typical NEMA-T frame type and typical with the motor industry. The electric motor shall be as indicated on the fan schedule and as available from the motor vendors.

#### ACCESSORIES

- 3.1 The fan shall have birdscreens manufactured of 3/4" non-flattened expanded galvanized metal around the exposed underside of the hood.
- 3.2 The fan shall be of a fixed, reversed air flow configuration with a double entry bell on the fan panel as indicated on the fan schedule where unit is required for supply air.
- 3.3 The fan shall be of a reversible air flow configuration for supply or exhaust with a double entry bell on the panel as indicated on the fan schedule. The fan's performance shall be equal in either direction.
- 3.4 Unit shall be of galvanized construction as shown on the fan schedule. All exterior surfaces shall be made of galvanized sheet steel or hot dipped galvanized. Hardware shall be zinc plated. The panel fan assembly on the interior of the unit shall be coated with an air dry enamel finish.

### Belt Drive - HRR/HRB

#### PRODUCT

- 2.1 The fan shall be of an axial flow propeller, panel fan mount, belt drive configuration.
- 2.2 The fan shall be belt drive, Arrangement 9 or 10 (as indicated on the fan schedule). The drive shall have a minimum 1.5 service factor.
- 2.3 The fan shaft should be steel, ground for precision fit to bearings and keyed for driving the impeller and driven sheave.
- 2.4 Fan bearings should be cast iron housing, self-aligning, relubricatable bearings.
- 2.4.1 Fan bearings shall have a minimum L10 life as defined by AFBMA of 40,000 hours.
- 2.5 Fan housing shall be of heavy gage sheet steel and shall support a steel spun panel, which shall allow for smooth flow into the propeller.
- 2.6 The fan panel shall have an integrally spun, deep shroud for smooth air entry into the propeller.
- 2.7 The fan's motor support and mounting structure shall be fabricated of heavy steel plate.
- 2.8 The propeller shall consist of 6 blades affixed directly to a precision cast or machined hub assembly. The hub is designed to incorporate a taper lock bushing and is keyed directly to the fan shaft.
- 2.9 The incorporated panel fan assembly and curb cap shall be coated with an air dry enamel. The hood and side sheets should be manufactured of galvanized sheet steel. Galvanized and aluminum parts are to remain uncoated.
- 2.10 The hood shall be supported and attached by means of heavy angle iron supports. Hoods shall be lockseam constructed for weatherproof service and designed to reduce sagging under heavy snow loading.
- 2.11 One side of the unit housing shall be removable for access to interior components.
- 2.12 The final complete fan assembly shall be vibration tested and mechanically balanced as per AMCA 204 Grade BV-3 / ANSI S2.19 G 6.3 and the results recorded on a label placed on the fan assembly.
- 2.13 The motor shall be of a typical NEMA-T frame type and typical with motor industry. The electric motor shall be as indicated on the fan schedule and as available from the motor vendors.

#### ACCESSORIES

- 3.1 The fan shall have birdscreens manufactured of 3/4" non-flattened expanded galvanized metal around the exposed underside of the hood.
- 3.2 The fan shall be of a fixed, reversed air flow configuration with a double entry bell on the fan panel as indicated on the fan schedule where unit is required for supply air.
- 3.3 The fan shall be of a reversible air flow configuration for supply or exhaust with double entry bell on the fan panel as indicated on the fan schedule. The fan's performance shall be equal in either direction.
- 3.4 Unit shall be of galvanized construction as shown on the fan schedule. All exterior surfaces shall be made of galvanized sheet steel or hot dipped galvanized. Hardware shall be zinc plated. The panel fan assembly on the interior of the unit shall be coated with an air dry enamel finish.

# HTB - Sample Specifications

## Large T-Hood Roof Ventilator

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- 1.1 Fans shall be tested and rated in accordance with AMCA air and sound methods and standards.
- 1.2 Fans shall conform to AMCA 99 standards.
- 1.3 All motors and electrical components shall comply with NEMA, UL or other governing body.
- 1.4 Fan performance rating shall be based on methods as developed by AMCA standard 210.
- 1.5 Form, function and application of the fan shall be as defined by ASHRAE, AMCA and SMACNA in regard to air system design in compatibility with the fan.

### PRODUCT

- 2.1 The fan shall be of an axial flow propeller, panel fan mount, belt drive configuration.
- 2.2 The fan shall be belt drive arrangement 10 (as indicated on the fan schedule). The drive shall have a minimum 1.5 service factor.
- 2.3 The fan shaft should be steel, ground for precision fit to bearings and keyed for driving the impeller and driven sheave.
- 2.4 Fan bearings should be cast iron housing, self-aligning, relubricatable bearings.
  - 2.4.1 Fan bearings shall have a minimum L10 life as defined by AFBMA of 40,000 hours.
- 2.5 Fan housing shall be of heavy gage sheet steel, reinforced with square steel tubing framework and shall support a steel, integrally spun Venturi panel, which shall allow for smooth flow into the propeller.
- 2.6 The adjustable motor support and mounting structure shall be fabricated of heavy steel plate and square steel tubing.
- 2.7 The propeller shall consist of 6 blades affixed directly to a precision cast or machined hub assembly. The hub is designed to incorporate a taper lock bushing and is keyed directly to the fan shaft.
- 2.8 The incorporated panel fan assembly and curb cap shall be coated with an air dry enamel. The hood and side sheets should be manufactured of galvanized sheet steel. Galvanized and aluminum parts are to remain uncoated.
- 2.9 The hood shall be supported and attached by means of heavy angle iron supports. Hoods shall be lockseam constructed for weatherproof service and designed to reduce sagging under heavy snow loading.

- 2.10 One side of the unit housing shall be removable for access to interior components.
- 2.11 The final complete fan assembly shall be vibration tested and mechanically balanced as per AMCA 204 Grade BV-3 / ANSI S2.19 G 6.3 and the results recorded on a label placed on the fan assembly.
- 2.12 The motor shall be of a typical NEMA-T frame type and typical with motor industry. The electric motor shall be as indicated on the fan schedule and as available from the motor vendors.

### ACCESSORIES

- 3.1 The fan shall have birdscreens manufactured of 3/4" non-flattened expanded galvanized metal around the exposed underside of the hood. These are removable in applications where supply filters are used.
- 3.2 The fan shall be of a fixed, reversed air flow configuration with a double entry bell on the fan panel as indicated on the fan schedule where unit is required for supply air.
- 3.3 The fan shall be of a reversible air flow configuration for supply or exhaust with double entry bell on the fan panel as indicated on the fan schedule. The fan's performance shall be equal in either direction.
- 3.4 Unit shall be of galvanized construction as shown on the fan schedule. All exterior surfaces shall be made of galvanized sheet steel or hot dipped galvanized. Hardware shall be zinc plated. The panel fan assembly on the interior of the unit shall be coated with an air dry enamel finish.

# One Year Limited Warranty

Hooded Roof Ventilators - HRD/HRR/HRB/HTB

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## What Products Are Covered

PennBarry Commercial and Industrial Fans (each, a "PennBarry Product")

## One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year 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 invoiced 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:

1. You must be the original commercial purchaser of the PennBarry Product.
2. You must promptly notify us within the warranty period of any defect and provide us with any substantiation that we may reasonably request.
3. 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:

1. Improper design or operation of the system into which the PennBarry Product is incorporated.
2. Improper installation.
3. Accident, abuse or misuse.
4. 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).
5. Components not manufactured by PennBarry.

## Limitations

1. In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoiced price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
2. 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.
3. 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 invoiced price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081.

