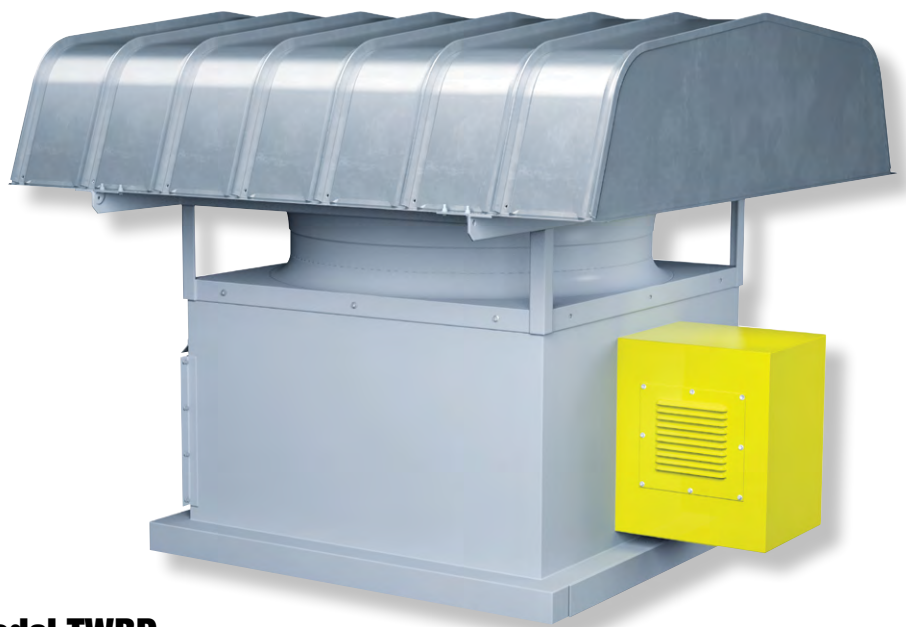


AEROVENT

INDUSTRIAL VENTILATION SYSTEMS



**Model TWBD
Belt Driven**

TU-WAY™ ROOF VENTILATORS

Direct Drive & Belt Driven

Model TW / TWB / TWBD

Models

TW | TWB | TWBD



Capabilities and Features

Designed for roof mounted applications handling clean air (model TW and TWB) or corrosive airstreams with elevated temperature environments (TWBD). The Tu-WAY™ models feature a reversible propeller design that is equally efficient and moves the same amount of air in either the supply or exhaust direction. Design features of the Tu-WAY™ models include:

- A patented reversible propeller producing equal airflow and high efficient operation in either direction.
- A two-way orifice permitting smooth entrance conditions into the fan reducing horsepower requirements.
- A heavy gauge galvanized steel hood with interlocking panels on sizes 24" through 60" ensures that the hood will not leak in stormy weather.
- A hood that pivots open or is completely removable permitting easy access to the propeller

Aerovent has provided quality air moving and ventilation equipment for over sixty-five years and is a recognized leader in this industry. Catalog 615 features Aerovent's Tu-WAY™ Roof Ventilators. The Tu-WAY™ unit features a patented reversible propeller design that allows the unit to move the same amount of air and maintain equivalent efficiency ratings in either supply or exhaust operation.

A typical ventilating application for the Aerovent Tu-WAY™ unit is in foundries during the molding process. During this process, both supply and exhaust ventilation is required. Foundries mold parts from many different materials such as aluminum, plastic, and glass. These materials can be formed into:

- cast aluminum propellers from aluminum
- skylights and windshields from plastic resins
- thermal insulation for buildings from ground glass and carbon

The Tu-WAY™ unit exhausts the smoke when the molds are filled and then, by reversing the unit, it supplies air to assist in the cooling process. Installing a Tu-WAY™ unit increases worker comfort and reduces equipment costs, since only one fan is required to ventilate the process.

Specify Aerovent's Tu-WAY™ direct drive, belt driven, or belted fan for ventilating areas when both economy and versatility are important design considerations. Tu-WAY™ fans are designed to allow the hood to be raised for easy access to the propeller. Access doors are standard for maintenance or removal of motor, drives and damper (optional). Reversing the propeller rotation is performed by moving the motor starter switch to the opposite position. This permits the motor to come to a complete stop before restarting in the opposite direction.

Sizes

24 to 72 inch wheel diameters

Performance

Airflow to 89,000 CFM

Static pressure to 0.5 inches w.g.



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Direct Drive

Aerovent's Tu-WAY™ direct drive units are designed with the motor in the airstream and are recommended for clean air applications. Design features specific to the direct drive Tu-WAY™ units are:

- Minimal maintenance as there are no fan bearings, drive sheaves or belts to maintain.
- A plenum access door providing complete access to the motor. If a damper is provided, the access door is large enough for the damper to be removed.

Belt Driven/Belted

Belt driven units are designed with the motor and drive out of the airstream and are recommended for corrosive environments and when temperatures exceed the motor insulation rating.

Belted units are designed with the motor and drive in the airstream and are recommended for clean air application. The belted unit offers a lower first cost than the belt driven unit.

Design features specific to the belt driven and belted Tu-WAY™ units are:

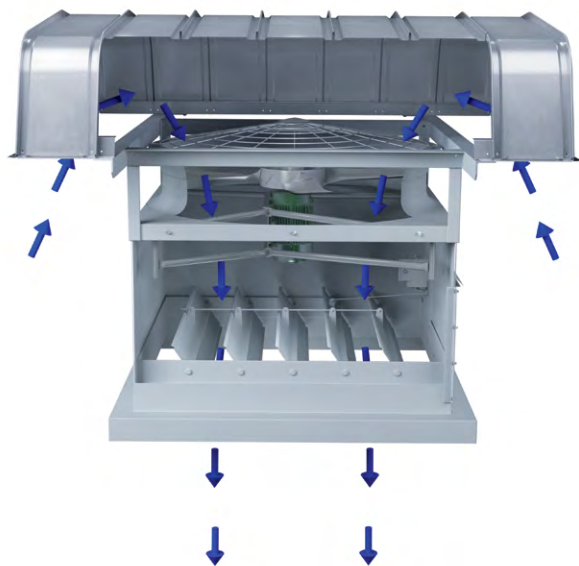
- Low speed capabilities to generate exceptionally low noise levels.
- Performance flexibility for future system requirements.
- A plenum access door providing complete access to the bearings, shaft and drive assembly. If a damper is provided, the access door is large enough for the damper to be removed.

Construction and Finish

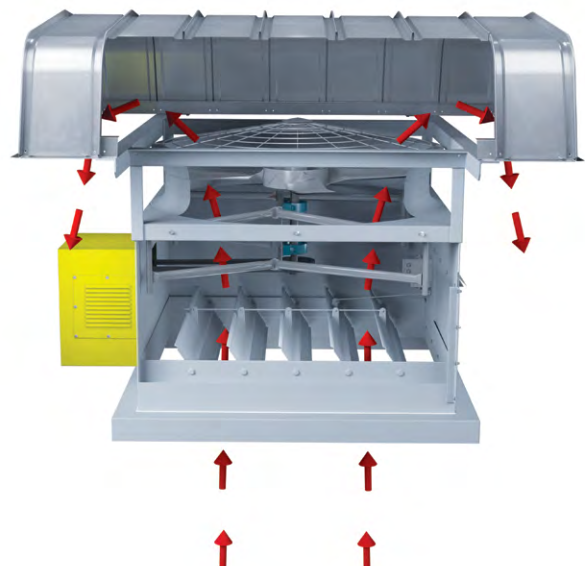
The Tu-WAY™ plenum section is constructed of welded 14-gauge steel for sizes 24" to 48" and 12-gauge steel for sizes 54" to 72". Plenum sections are furnished with air dried gray enamel. For special applications, the Tu-WAY™ unit is available in galvanized, aluminum, or stainless steel construction.

Aerovent's patented reversible propeller is an aluminum alloy casting and is secured to the motor or fan shaft with a split taper lock bushing. Each unit is constructed with close tolerances between the propeller tips and the orifice to maintain maximum efficiency.

Size 24" through 60" Tu-WAY™ hoods are constructed of galvanized steel and are attached to the fan with heavy structural angle supports for added stability. Hoods for size 72" are constructed of painted mild steel. Corrosion resistant fiberglass reinforced plastic hoods and other special materials are also available.

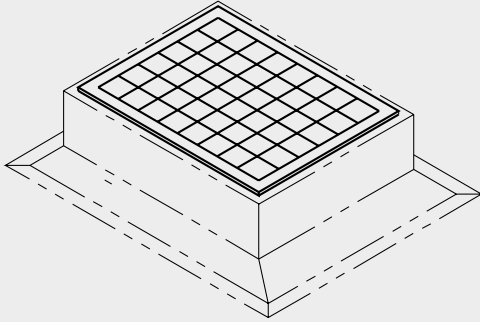


Tu-WAY™ in supply air configuration (model TW)



Tu-WAY™ in exhaust air configuration (model TWBD)

Accessories



Inlet Safety Screen

Inlet Safety Screen

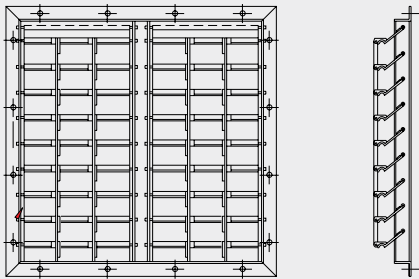
Inlet safety screens protect personnel and the floor area from falling debris. The wire mesh screen is mounted on top of the roof curb.

Bird Screen

A bird screen prevents foreign material from entering the fan assembly. The spiral wire guard is bolted to the two-way orifice.

Automatic Shutter – Exhaust End-Pivoted Shutter

Automatic shutter prevents backdrafts when the unit is turned off. It is used for **exhaust only** applications and is mounted in the base of the Tu-WAY™ ventilator. It is constructed of an aluminum frame and aluminum blades.

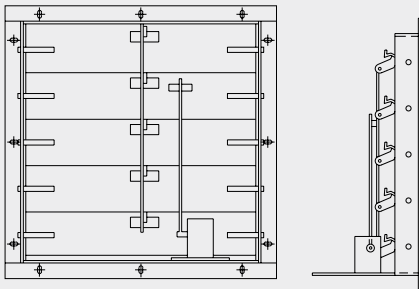


Automatic Shutter - Exhaust End-Pivoted Shutter

Motor-Operated Center-Pivoted Shutter

Actuators provide true spring return operation of motor-operated, center-pivoted shutter and prevent backdrafts (in both supply and exhaust modes) when the fan is turned off. Constructed with galvanized steel frame and blades, these shutters are located in the ventilator base.

The motor is provided with an end switch which allows the shutter to open before the fan is energized. As an option for 230, 460 or 575 volt operation, a 115 volt step-down transformer is available.



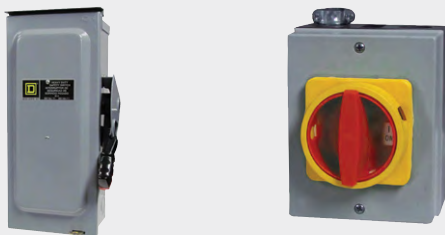
Motor-Operated Center-Pivoted Shutter

Disconnect Switches

Disconnect switches permit safe servicing of the unit by isolating the fan motor from remote starting equipment.

Reversing Starter With NEMA 4 Enclosure, Fused Disconnect Switch and Control Transformer

Reversing starters safeguard personnel from accidental starting of the fan and simplify field installation of the disconnect and starter by providing the two devices in a single enclosure.



NEMA 3R Enclosure
(Rainproof/Sleet Resistant)

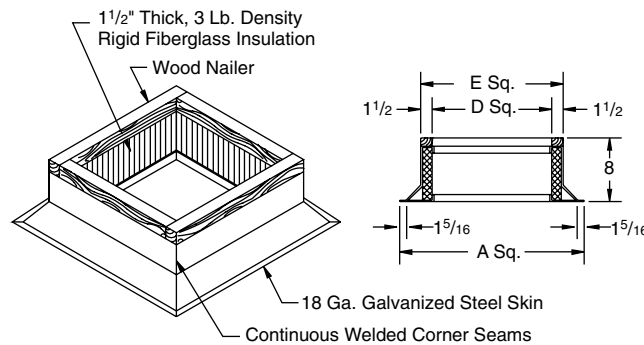
NEMA 4 Enclosure
(Dust tight/water tight)



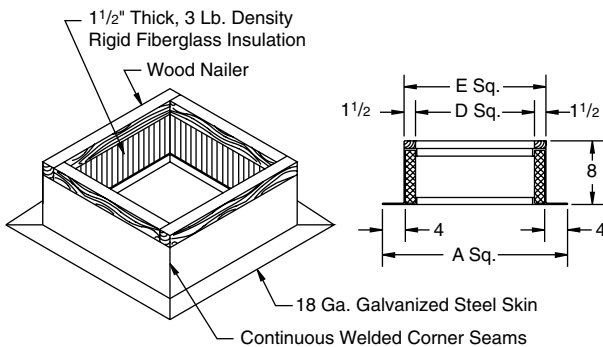
Prefabricated Roof Curbs

Roof curbs provide a level mounting surface and easy installation for the Tu-WAY™ ventilator. To meet any type of roof design, the following roof curbs are available for flat, sloped or peaked roof decks.

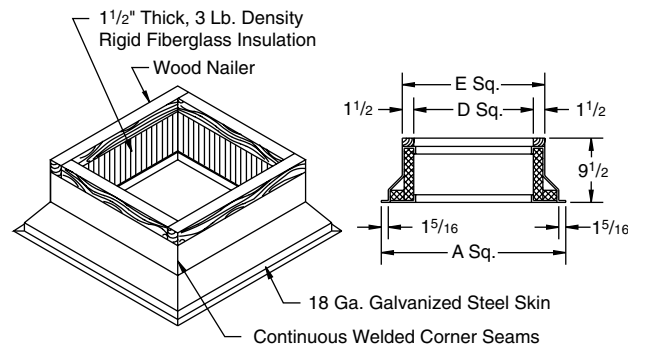
- Type 1:** Designed with a built-in cant and mitered corners to prevent leakage. Typically used on metal, concrete or wood roof decks that do not have insulation.
- Type 2:** Designed with a flat flange for self-flashing capability. Typically used on metal or concrete roof decks that have insulated roof decks.
- Type 5:** Designed with a raised cant to match the roof insulation thickness and permit easy application of roofing materials. Typically used on metal or concrete roof decks that have insulation over the deck.



Type 1 Roof Ventilator Curb



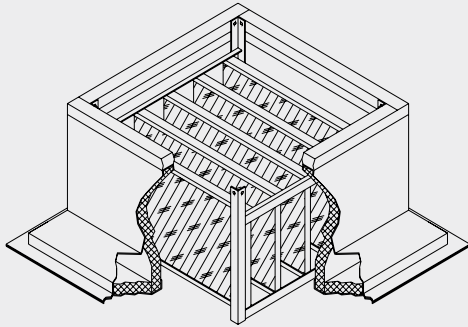
Type 2 Roof Ventilator Curb



Type 5 Roof Ventilator Curb

CURB SIZE (IN.)	PREFABRICATED ROOF CURB DIMENSIONS FOR TU-WAY ROOF VENTILATOR (IN.)		
	A	D	E
24	42	31	34
30	50	39	42
36	56	45	48
42	62	51	54
48	68	57	60
54	82	71	74
60	89	78	81
72	93	82	85

Sound Curbs

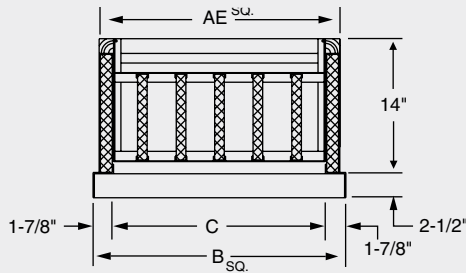


Sound Curb Cutaway

Aerovent's sound curbs reduce noise (the sound pressure level) by approximately 14.5 dB(A), in the frequency range of 100 to 4000 Hz, as measured by portions of the procedure outlined in ASTM E90-75. To meet any type of roof design, the following sound curbs are available.

Extended (EC) Sound Curb

Designed to permit existing curb installations or job constructed curbs to be converted into sound attenuating mountings.



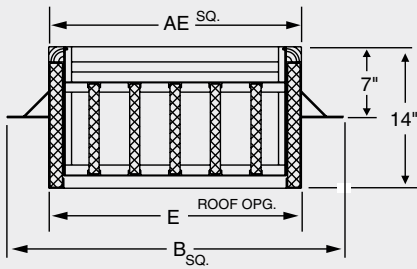
Extended (EC) Sound Curb

Recessed Mounted (RM) Sound Curb

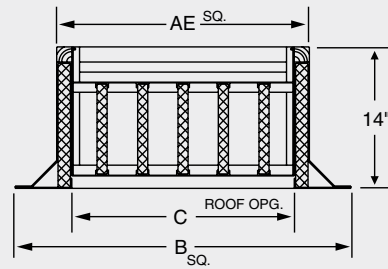
Designed to reduce the overall height of the curb as the curb body is recessed into the roof. Roof openings must be as large as the curb body.

Surface Mounted (SM) Sound Curb

Designed to permit smaller roof openings as the curb body is mounted above the roof level. Recommended when height is not objectionable.



Recessed Mounted (RM) Sound Curb



Surface Mounted (SM) Sound Curb

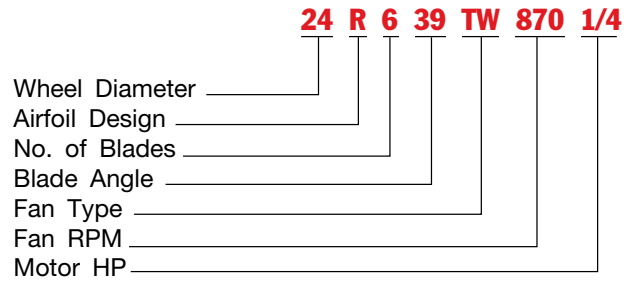
CURB SIZE	SOUND CURB DIMENSIONS					
	A (EC)	B (SM & RM)	C (SM & EC)	E (RM)	AE (ALL)	GA. (ALL)
24	35 ³ / ₄	43 ¹ / ₄	32	36	35	14
30	43 ³ / ₄	51 ¹ / ₄	40	44	43	14
36	49 ³ / ₄	57 ¹ / ₄	46	50	49	14
42	55 ³ / ₄	63 ¹ / ₄	52	56	55	14
48	61 ³ / ₄	69 ¹ / ₄	58	62	61	12
54	75 ³ / ₄	83 ¹ / ₄	71	76	75	12
60	82 ³ / ₄	90 ¹ / ₄	78	83	82	12
72	87	94 ¹ / ₄	82	87	86	10

Tu-WAY™ Direct Drive

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information in the tables below under catalog number. All performance data is available in curve form upon request.

Aerovent certifies that the Tu-WAY™ Direct Drive Roof Ventilators, shown on pages 7 through 9, have been tested and rated in accordance with industry accepted test codes, and are guaranteed to deliver rated performance.

Catalog Numbering System



Size 24"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
24R639	TW	870	1/4	4474	0.224	3436	0.268						
24R629A	TW	1160	1/4	4634	0.250								
24R629B	TW	1160	1/3	4634	0.250	4077	0.298	3422	0.35				
24R634A	TW	1160	1/3	5327	0.359								
24R634B	TW	1160	1/2	5327	0.359	4739	0.417	4030	0.467	2979	0.527		
24R638A	TW	1160	1/2	5913	0.546								
24R638B	TW	1160	3/4	5913	0.546	5295	0.602	4480	0.626				
24R632A	TW	1750	1	7574	1.02	7228	1.11						
24R632B	TW	1750	1½	7574	1.02	7228	1.11	6856	1.20	6453	1.27	5996	1.35
24R639	TW	1750	2	9000	1.82	8605	1.90	8157	1.99	7615	2.10	6948	2.18

Size 30"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
30R636A	TW	870	1/2	8299	0.563								
30R636B	TW	870	3/4	8299	0.563	7326	0.62	5839	0.692				
30R634A	TW	1160	1	10404	1.10								
30R634B	TW	1160	1	10404	1.10	9683	1.21	8921	1.32	8018	1.41	6690	1.52
30R638A	TW	1160	1½	11549	1.67								
30R638B	TW	1160	2	11549	1.67	10803	1.79	9962	1.86	8918	1.90	7339	1.99

Size 36"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
36R632A	TW	690	1/2	10330	0.535								
36R632B	TW	690	3/4	10330	0.535	8821	0.605	6824	0.708				
36R626A	TW	870	1/2	10426	0.547								
36R626B	TW	870	3/4	10426	0.547	9263	0.66	7976	0.782	6651	0.858		
36R626C	TW	870	1	10426	0.547	9263	0.66	7976	0.782	6651	0.858		
36R629A	TW	870	3/4	11662	0.757								
36R629B	TW	870	1	11662	0.757	10521	0.864	9217	0.991	7907	1.09		
36R632A	TW	870	1	13025	1.07								
36R632B	TW	870	1½	13025	1.07	11973	1.17	10409	1.25	8868	1.39		
36R636	TW	870	1½	14451	1.45	13244	1.58	11891	1.70				
36R638	TW	870	2	15168	1.73	13857	1.89	12491	2.02	10836	2.11		
36R622A	TW	1160	3/4	11055	0.78								
36R622B	TW	1160	1	11055	0.78	10290	0.976	9457	1.10				
36R622C	TW	1160	1½	11055	0.78	10290	0.976	9457	1.10	8579	1.17	7692	1.27
36R624A	TW	1160	1	12437	1.05								
36R624B	TW	1160	1½	12437	1.05	11684	1.17	10882	1.30	10024	1.44	9131	1.57
36R626A	TW	1160	1½	13901	1.30	13049	1.44	12143	1.60				
36R626B	TW	1160	2	13901	1.30	13049	1.44	12143	1.60	11177	1.77	10195	1.91
36R630A	TW	1160	2	15721	1.97	14904	2.16						
36R630B	TW	1160	3	15721	1.97	14904	2.16	14090	2.32	13303	2.45	12453	2.57
36R634	TW	1160	3	18312	2.93	17508	3.08	16634	3.22	15651	3.37		

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.

Performance ratings include the effects of a hood in the airstream.

Size 42"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
42R632A	TW	690	1										
42R632B	TW	690	1½	16404	1.16	14815	1.27	12455	1.39	10181	1.6		
42R638	TW	690	2	19103	1.86	17166	2.06	15091	2.22				
42R626A	TW	870	1										
42R626B	TW	870	1½	16556	1.18	15218	1.36	13761	1.56				
42R626C	TW	870	2	16556	1.18	15218	1.36	13761	1.56	12239	1.73	10693	1.85
42R630A	TW	870	2	18723	1.79	17453	2.01	16205	2.19				
42R630B	TW	870	3	18723	1.79	17453	2.01	16205	2.19	14921	2.33	13298	2.47
42R622A	TW	1160	1½	17555	1.69								
42R622B	TW	1160	2	17555	1.69	16671	2.01	15738	2.26				
42R622C	TW	1160	3	17555	1.69	16671	2.01	15738	2.26	14732	2.40	13707	2.52
42R632A	TW	1160	5	27578	5.50	26727	5.70						
42R632B	TW	1160	7½	27578	5.50	26727	5.70	25783	5.89	24706	6.08	23311	6.24

Size 48"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48R629A	TW	690	1½	21924	1.59								
48R629B	TW	690	2	21924	1.59	20018	1.79	17848	2.03	15670	2.23		
48R629C	TW	690	3	21924	1.59	20018	1.79	17848	2.03	15670	2.23	13306	2.38
48R626A	TW	870	2										
48R626B	TW	870	3	24713	2.30	23198	2.56	21586	2.85	19870	3.15	18125	3.4
48R629A	TW	870	3	27643	3.19	26162	3.43						
48R629B	TW	870	5	27643	3.19	26162	3.43	24572	3.70	22823	4.02	21088	4.29
48R634A	TW	870	5	32554	5.22	31126	5.47	29572	5.73				
48R634B	TW	870	7½	32554	5.22	31126	5.47	29572	5.73	27824	5.99	25916	6.25
48R622A	TW	1160	3	26204	3.29								
48R622B	TW	1160	5	26204	3.29	25201	3.78	24156	4.20	23059	4.51	21895	4.69
48R626A	TW	1160	5	32951	5.46								
48R626B	TW	1160	7½	32951	5.46	31828	5.80	30670	6.16	29472	6.53	28218	6.94

Size 54"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
54R624A	TW	690	1½	24968	1.67								
54R624B	TW	690	2	24968	1.67	23054	1.93	20975	2.20				
54R624C	TW	690	3	24968	1.67	23054	1.93	20975	2.20	18754	2.46	16344	2.66
54R626A	TW	690	2	27908	2.07								
54R626B	TW	690	3	27908	2.07	25742	2.37	23391	2.70	20928	3.01	18424	3.22
54R630A	TW	690	3	31560	3.14								
54R630B	TW	690	5	31560	3.14	29501	3.52	27473	3.82	25426	4.06	22893	4.30
54R634A	TW	690	5	36762	4.69	34714	4.98	32419	5.27	29765	5.56		
54R634B	TW	690	7½	36762	4.69	34714	4.98	32419	5.27	29765	5.56	27087	5.84
54R638	TW	690	7½	40601	6.54	38139	6.98	35600	7.37	32965	7.70	29884	7.95
54R624A	TW	870	3	31481	3.35								
54R624B	TW	870	5	31481	3.35	29984	3.67	28415	4.00	26755	4.35	25016	4.69
54R629	TW	870	7½	39359	5.75	37705	6.09	35960	6.46	34085	6.88	32090	7.32
54R632A	TW	870	7½	43959	8.15	42495	8.47						
54R632B	TW	870	10	43959	8.15	42495	8.47	40855	8.78	38936	9.07	36405	9.32
54R634	TW	870	10	46352	9.40	44757	9.77	43058	10.13	41226	10.50	39187	10.87
54R638	TW	870	15	51192	13.10	49252	13.68	47270	14.21	45249	14.69	43214	15.12

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.
Performance ratings include the effects of a hood in the airstream.

Size 60"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
60R622A	TW	690	2	30444	2.11								
60R622B	TW	690	3	30444	2.11	28300	2.65	25960	2.97	23500	3.18	21002	3.45
60R624A	TW	690	3	34250	2.83	32138	3.18						
60R624B	TW	690	5	34250	2.83	32138	3.18	29888	3.54	27478	3.93	24967	4.26
60R630A	TW	690	5	43293	5.32								
60R630B	TW	690	7½	43293	5.32	41004	5.84	38724	6.29	36519	6.64	34112	6.97
60R634A	TW	690	7½	50428	7.94	48174	8.34						
60R634B	TW	690	10	50428	7.94	48174	8.34	45720	8.74	42949	9.14	39941	9.54
60R638A	TW	690	10	55693	11.07								
60R638B	TW	690	15	55693	11.07	52967	11.69	50162	12.25	47322	12.73	44266	13.15
60R622A	TW	870	5	38386	4.23	36709	4.95	34951	5.53				
60R622B	TW	870	7½	38386	4.23	36709	4.95	34951	5.53	33081	5.91	31118	6.15
60R626A	TW	870	7½	48269	7.03	46394	7.53	44449	8.06	42423	8.62		
60R626B	TW	870	10	48269	7.03	46394	7.53	44449	8.06	42423	8.62	40295	9.23
60R630A	TW	870	10	54586	10.67	52770	11.35						
60R630B	TW	870	15	54586	10.67	52770	11.35	50958	11.96	49148	12.51	47388	12.99
60R634A	TW	870	15	63584	15.92	61823	16.42	59970	16.93				
60R634B	TW	870	20	63584	15.92	61823	16.42	59970	16.93	58011	17.43	55908	17.93
60R638A	TW	870	20	70222	22.19	68071	22.98						
60R638B	TW	870	20	70222	22.19	68071	22.98	65882	23.73	63653	24.43	61406	25.07

Size 72"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
72R622A	TW	690	5	52607	5.26								
72R622B	TW	690	7½	52607	5.26	50063	6.23	47383	6.99	44502	7.43	41538	7.78
72R624A	TW	690	7½	59183	7.04	56673	7.64	54056	8.25				
72R624B	TW	690	10	59183	7.04	56673	7.64	54056	8.25	51309	8.90	48423	9.57
72R626A	TW	690	10	66151	8.73	63309	9.41	60350	10.14	57242	10.93		
72R626B	TW	690	15	66151	8.73	63309	9.41	60350	10.14	57242	10.93	53990	11.76
72R630	TW	690	15	74810	13.25	72062	14.17	69320	15.00	66592	15.73	63954	16.35
72R634	TW	690	20	87140	19.76	84468	20.45	81642	21.14	78631	21.83	75338	22.52
72R638	TW	690	25	96238	27.54	92980	28.63						
72R622A	TW	870	10	66330	10.54								
72R622B	TW	870	15	66330	10.54	64332	11.81	62269	12.92	60135	13.86	57904	14.55
72R624A	TW	870	15	74622	14.12	72646	14.86	70619	15.62	68538	16.40	66395	17.20
72R624B	TW	870	20	74622	14.12	72646	14.86	70619	15.62	68538	16.40	66395	17.20
72R626	TW	870	20	83408	17.49	81170	18.35	78876	19.24	76523	20.16	74101	21.12

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.
Performance ratings include the effects of a hood in the airstream.

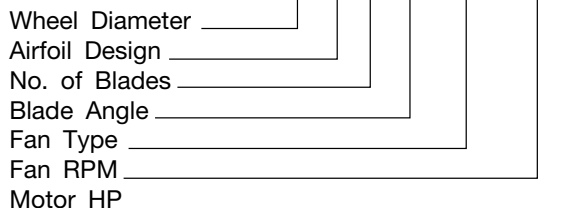
Tu-Way™ Belt Driven

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information in the tables below under catalog number. All performance data is available in curve form upon request.

Aerovent certifies that the Tu-WAY™ Belt Driven/Belted Roof Ventilators, shown on pages 10 through 12, have been tested and rated in accordance with industry accepted test codes, and are guaranteed to deliver rated performance.

Catalog Numbering System

24 R 6 34 TWB 934 1/3



Size 24"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
24R634	TWB	934	1/3	4264	0.275	3449	0.321	2247	0.360				
24R634A	TWB	1023	1/3	4671	0.362								
24R634B	TWB	1023	1/2	4671	0.362	3944	0.412	2940	0.450				
24R634A	TWB	1176	1/2	5369	0.550								
24R634B	TWB	1176	3/4	5369	0.550	4749	0.607	3997	0.662	3009	0.703		
24R634A	TWB	1347	3/4	6150	0.826								
24R634B	TWB	1347	1	6150	0.826	5617	0.892	5027	0.958	4273	1.01	3388	1.06

Size 30"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
30R634	TWB	646	1/3	5761	0.278	4169	0.338						
30R634	TWB	703	1/2	6269	0.358	4881	0.425						
30R634A	TWB	811	1/2	7232	0.550								
30R634B	TWB	811	3/4	7232	0.550	6083	0.628	4486	0.686				
30R634A	TWB	928	3/4	8276	0.824								
30R634B	TWB	928	1	8276	0.824	7292	0.913	6083	0.997	4502	1.07		
30R634A	TWB	1013	1	9034	1.07								
30R634B	TWB	1013	1 1/2	9034	1.07	8142	1.17	7124	1.26	5780	1.33		
30R634A	TWB	1278	2	11397	2.15	10704	2.28						
30R634B	TWB	1278	3	11397	2.15	10704	2.28	9963	2.40	9154	2.52	8155	2.62
30R634A	TWB	1473	3	13136	3.30	12540	3.44						
30R634B	TWB	1473	5	13136	3.30	12540	3.44	11912	3.58	11254	3.72	10540	3.86

Size 36"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
36R634A	TWB	619	1/2	9441	0.501								
36R634B	TWB	619	3/4	9441	0.501	7807	0.605	5258	0.71				
36R634A	TWB	708	3/4	10799	0.75								
36R634B	TWB	708	1	10799	0.75	9378	0.87	7783	0.983				
36R634A	TWB	780	1	11897	1.00	10610	1.14						
36R634B	TWB	780	1 1/2	11897	1.00	10610	1.14	9248	1.26	7191	1.40		
36R634A	TWB	891	1 1/2	13590	1.49	12468	1.65						
36R634B	TWB	891	2	13590	1.49	12468	1.65	11322	1.79	10040	1.94	7991	2.10
36R634A	TWB	981	2	14963	1.99	13947	2.17						
36R634B	TWB	981	3	14963	1.99	13947	2.17	12912	2.33	11821	2.48	10552	2.64
36R634A	TWB	1125	3	17159	3.01	16276	3.21	15376	3.40				
36R634B	TWB	1125	5	17159	3.01	16276	3.21	15376	3.40	14470	3.58	13501	3.76
36R634A	TWB	1334	5	20347	5.02	19605	5.25	18851	5.48	18089	5.70		
36R634B	TWB	1334	7 1/2	20347	5.02	19605	5.25	18851	5.48	18089	5.70	17327	5.92

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.
 Power rating (BHP) includes drive losses.
 Performance ratings include the effects of a hood in the airstream.

Size 42"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
42R634A	TWB	548	3/4	13273	0.752								
42R634B	TWB	548	1	13273	0.752	11124	0.898	8099	1.05				
42R634A	TWB	604	1	14629	1.01								
42R634B	TWB	604	1½	14629	1.01	12687	1.17	10494	1.32				
42R634A	TWB	692	1½	16760	1.51	15070	1.70						
42R634B	TWB	692	2	16760	1.51	15070	1.70	13303	1.88	10944	2.07		
42R634A	TWB	760	2	18407	2.00	16874	2.21						
42R634B	TWB	760	3	18407	2.00	16874	2.21	15305	2.41	13543	2.60	10677	2.83
42R634A	TWB	870	3	21072	3.01	19737	3.25						
42R634B	TWB	870	5	21072	3.01	19737	3.25	18376	3.48	16969	3.70	15384	3.92
42R634A	TWB	1031	5	24971	5.01	23849	5.29	22707	5.57				
42R634B	TWB	1031	7½	24971	5.01	23849	5.29	22707	5.57	21556	5.84	20374	6.10
42R634A	TWB	1181	7½	28604	7.52	27627	7.85	26636	8.18	25632	8.49		
42R634B	TWB	1181	10	28740	7.74	27700	8.00	26700	8.30	25700	8.60	24750	9.00

Size 48"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48R634A	TWB	482	1	17427	0.997								
48R634B	TWB	482	1½	17427	0.997	14635	1.19	10766	1.39				
48R634A	TWB	533	1½	19271	1.35	16755	1.56						
48R634B	TWB	533	2	19271	1.35	16755	1.56	13940	1.76				
48R634A	TWB	609	2	22019	2.01	19823	2.26						
48R634B	TWB	609	3	22019	2.01	19823	2.26	17534	2.49	14535	2.74		
48R634A	TWB	697	3	25200	3.02	23291	3.3						
48R634B	TWB	697	5	25200	3.02	23291	3.3	21344	3.57	19231	3.84	16354	4.13
48R634A	TWB	826	5	29864	5.02	28260	5.36	26623	5.69				
48R634B	TWB	826	7½	29864	5.02	28260	5.36	26623	5.69	24974	6.01	23190	6.32
48R634A	TWB	946	7½	34203	7.54	32805	7.93	31386	8.32				
48R634B	TWB	946	10	34203	7.54	32805	7.93	31386	8.32	29952	8.69	28507	9.04

Size 54"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
54R634A	TWB	405	1	20849	1.07								
54R634B	TWB	405	1½	20849	1.07	17093	1.29	10719	1.54				
54R634A	TWB	463	1½	23835	1.59								
54R634B	TWB	463	2	23835	1.59	20575	1.86	16831	2.11				
54R634A	TWB	509	2	26203	2.12								
54R634B	TWB	509	3	26203	2.12	23242	2.41	20081	2.68	14938	2.99		
54R634A	TWB	582	3	29961	3.16								
54R634B	TWB	582	5	29961	3.16	27383	3.50	24743	3.82	21734	4.13	16523	4.49
54R634A	TWB	692	5	35623	5.32	33466	5.72						
54R634B	TWB	692	7½	35623	5.32	33466	5.72	31266	6.12	29016	6.49	26511	6.86
54R634A	TWB	780	7½	40153	7.61	38244	8.08	36300	8.52				
54R634B	TWB	780	10	40153	7.61	38244	8.08	36300	8.52	34345	8.95	32306	9.37
54R634A	TWB	866	10	44581	10.42	42864	10.93	41122	11.44				
54R634B	TWB	866	15	44581	10.42	42864	10.93	41122	11.44	39359	11.92	37594	12.39
54R634A	TWB	987	15	50810	15.43	49306	16.02	47785	16.59	46246	17.16		
54R634B	TWB	987	20	50810	15.43	49306	16.02	47785	16.59	46246	17.16	44700	17.71

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.
 Power rating (BHP) includes drive losses.
 Performance ratings include the effects of a hood in the airstream.

Size 60"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
60R634A	TWB	338	1	23868	1.05								
60R634B	TWB	338	1½	23868	1.05	18797	1.31						
60R634A	TWB	387	2	27328	1.57	22983	1.88	17027	2.19				
60R634B	TWB	387	3	27328	1.57	22983	1.88	17027	2.19				
60R634A	TWB	427	2	30152	2.12								
60R634B	TWB	427	3	30152	2.12	26227	2.45	21841	2.77				
60R634A	TWB	489	3	34530	3.18								
60R634B	TWB	489	5	34530	3.18	31115	3.57	27555	3.93	22947	4.31		
60R634A	TWB	580	5	40956	5.30								
60R634B	TWB	580	7½	40956	5.30	38092	5.77	35172	6.21	32072	6.64	28362	7.08
60R634A	TWB	663	7½	46817	7.92	44320	8.46						
60R634B	TWB	663	10	46817	7.92	44320	8.46	41771	8.97	39204	9.47	36431	9.96
60R634A	TWB	729	10	51478	10.53	49211	11.12						
60R634B	TWB	729	15	51478	10.53	49211	11.12	46904	11.70	44579	12.25	42204	12.79
60R634A	TWB	835	15	58963	15.82	56987	16.50	54986	17.17				
60R634B	TWB	835	20	58963	15.82	56987	16.50	54986	17.17	52957	17.82	50931	18.45

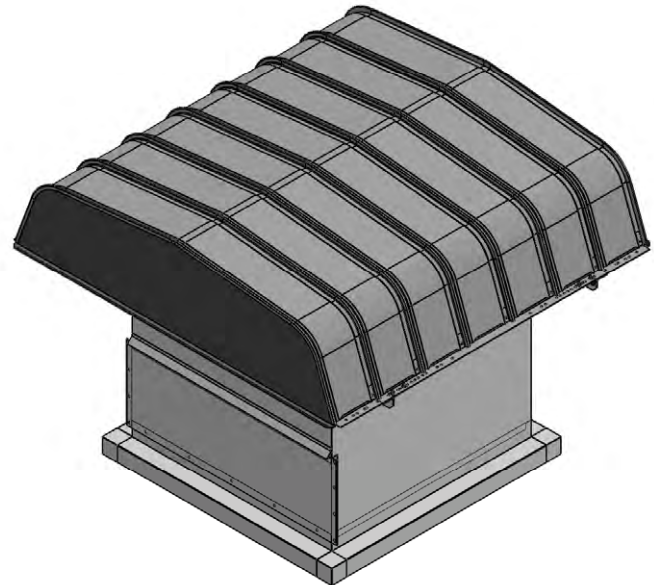
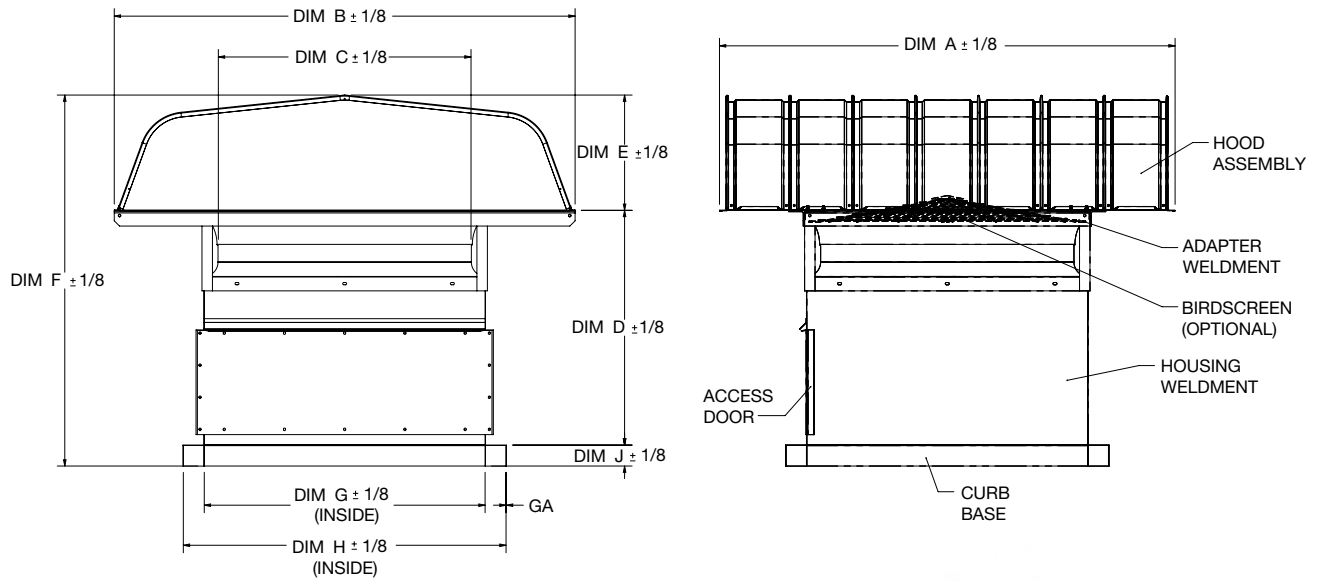
Size 72"

CATALOG NUMBER				CUBIC FT. PER MIN. & HORSEPOWER AT STATIC PRESSURE									
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
72R634A	TWB	315	2	38437	2.11								
72R634B	TWB	315	3	38437	2.11	32022	2.54	22597	2.97				
72R634A	TWB	361	3	44050	3.18								
72R634B	TWB	361	5	44050	3.18	38480	3.67	32331	4.13				
72R634A	TWB	428	5	52226	5.30								
72R634B	TWB	428	7½	52226	5.30	47549	5.89	42744	6.45	37140	7.00	26341	7.68
72R634A	TWB	490	7½	59791	7.95								
72R634B	TWB	490	10	59791	7.95	55724	8.64	51578	9.29	47210	9.91	42115	10.54
72R634A	TWB	539	10	65770	10.59	62081	11.34						
72R634B	TWB	539	15	65770	10.59	62081	11.34	58316	12.07	54511	12.76	50349	13.44
72R634A	TWB	617	15	75288	15.88	72073	16.75						
72R634B	TWB	617	20	75288	15.88	72073	16.75	68805	17.59	65509	18.40	62162	19.19
72R634A	TWB	679	20	82853	21.17	79936	22.12						
72R634B	TWB	679	25	82853	21.17	79936	22.12	76980	23.06	73984	23.97	70993	24.85
72R634A	TWB	729	25	88954	26.20	86240	27.22	83493	28.23				
72R634B	TWB	729	30	88954	26.20	86240	27.22	83493	28.23	80713	29.22	77923	30.18

NOTES:

Performance shown is for installation Type A: free inlet, free outlet.
 Power rating (BHP) includes drive losses.
 Performance ratings include the effects of a hood in the airstream.

Tu-Way™ Direct Drive and Belted, Models TW and TWB



SIZE	A	B	C	D	E	F	G	H	J	GA.	MAX MOTOR FRAME	
											TW	TWB
24	51	48	24	35 ⁵ / ₁₆	12 ¹⁵ / ₁₆	52 ¹ / ₄	27 ⁵ / ₈	35 ⁵ / ₈	4	14 GA.	184T	145T
30	51	54	30	38 ¹⁵ / ₁₆	15 ¹⁵ / ₁₆	58 ⁷ / ₈	35 ⁵ / ₈	43 ⁵ / ₈	4	14 GA.	215T	184T
36	63	66	36	42 ¹⁵ / ₁₆	17 ¹⁵ / ₁₆	64 ⁷ / ₈	41 ⁵ / ₈	49 ⁵ / ₈	4	14 GA.	256T	215T
42	75	75	42	44 ⁹ / ₁₆	19 ¹⁵ / ₁₆	68 ¹ / ₂	47 ⁵ / ₈	55 ⁵ / ₈	4	14 GA.	256T	256T
48	87	88	48	44 ¹³ / ₁₆	21 ¹⁵ / ₁₆	70 ³ / ₄	53 ⁵ / ₈	61 ⁵ / ₈	4	14 GA.	256T	256T
54	99	86	54	55 ³ / ₈	23 ¹⁵ / ₁₆	83 ¹ / ₁₆	67 ³ / ₈	75 ⁵ / ₈	3 ³ / ₄	14 GA.	286T	256T
60	111	93	60	55 ⁹ / ₁₆	24	83 ⁹ / ₁₆	74 ³ / ₈	82 ³ / ₈	3 ³ / ₄	14 GA.	326T	256T
72*	123	124	72	55 ¹³ / ₁₆	26 ¹ / ₂	86 ⁵ / ₁₆	78 ³ / ₈	86 ³ / ₈	4	12 GA.	365T	286T

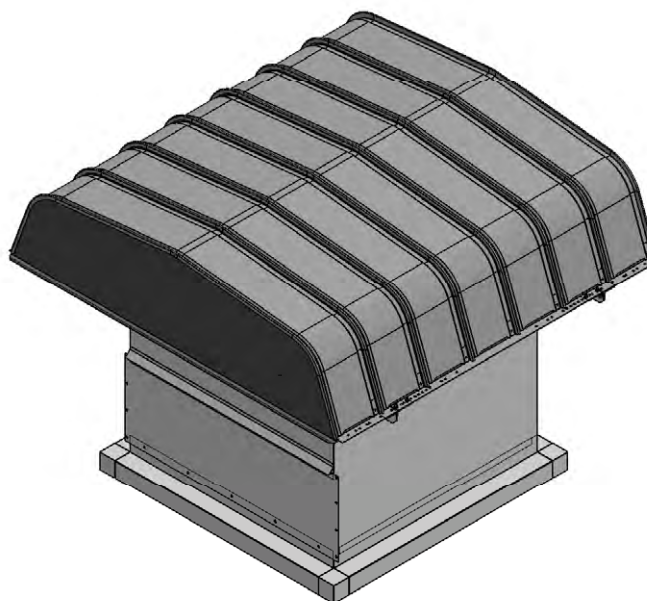
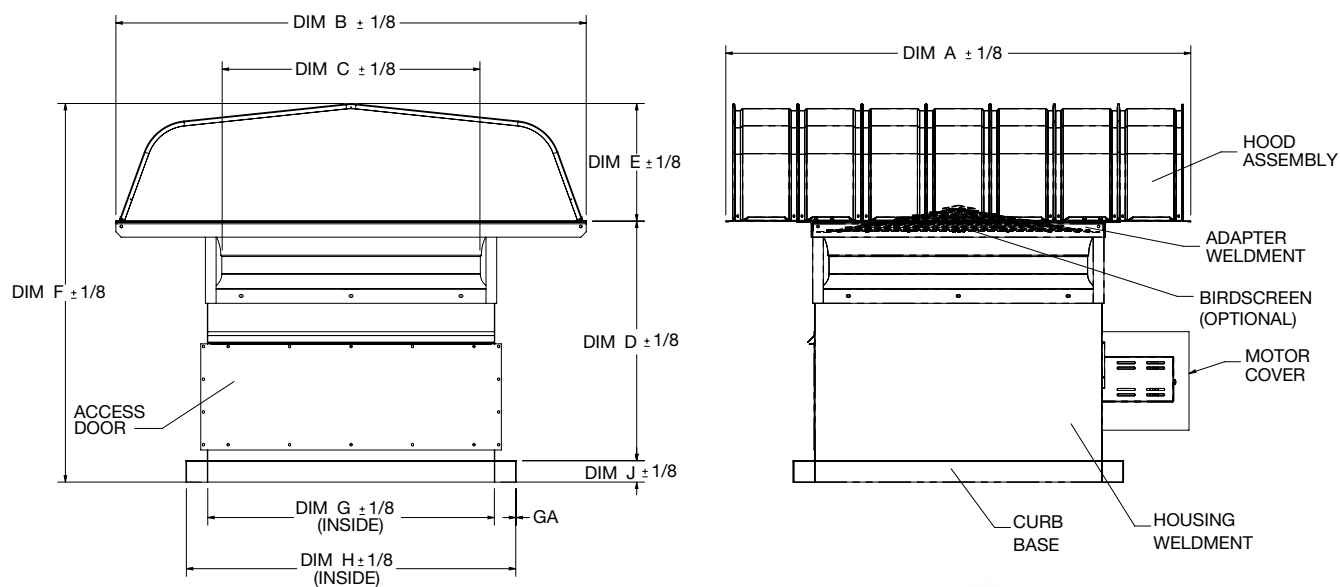
*Size 72 will have a split painted steel hood (12 GA).

BC1005839

Dimensions in inches unless otherwise indicated.

Dimensions are not to be used for construction.

Tu-Way™ Belt Driven, Model TWBD



SIZE	A	B	C	D	E	F	G	H	J	GA.	MAX MOTOR FRAME
24	51	48	24	35 ⁵ / ₁₆	12 ¹⁵ / ₁₆	52 ¹ / ₄	27 ⁵ / ₈	35 ⁵ / ₈	4	14 GA.	184T
30	51	54	30	38 ¹⁵ / ₁₆	15 ¹⁵ / ₁₆	58 ⁷ / ₈	35 ⁹ / ₈	43 ⁵ / ₈	4	14 GA.	184T
36	63	66	36	42 ¹⁵ / ₁₆	17 ¹⁵ / ₁₆	64 ⁷ / ₈	41 ⁵ / ₈	49 ⁵ / ₈	4	14 GA.	256T
42	75	75	42	44 ⁹ / ₁₆	19 ¹⁵ / ₁₆	68 ¹ / ₂	47 ⁵ / ₈	55 ⁵ / ₈	4	14 GA.	256T
48	87	88	48	44 ¹³ / ₁₆	21 ¹⁵ / ₁₆	70 ³ / ₄	53 ⁹ / ₈	61 ⁵ / ₈	4	14 GA.	286T
54	99	86	54	55 ³ / ₈	23 ¹⁵ / ₁₆	83 ¹ / ₁₆	67 ³ / ₈	75 ³ / ₈	3 ³ / ₄	14 GA.	286T
60	111	93	60	55 ⁹ / ₁₆	24	83 ⁵ / ₁₆	74 ³ / ₈	82 ³ / ₈	3 ³ / ₄	14 GA.	286T
72*	123	124	72	55 ¹³ / ₁₆	26 ¹ / ₂	86 ⁵ / ₁₆	78 ³ / ₈	86 ³ / ₈	4	12 GA.	326T

*Size 72 will have a split painted steel hood (12 GA.).

BC1005840

Dimensions in inches unless otherwise indicated.

Dimensions are not to be used for construction.

Direct Drive

Tu-WAY™ Direct Drive Roof Ventilators, Model TW, as manufactured by Aerovent, Minneapolis, Minnesota, shall be of the size and capacity as indicated in the fan schedule. Tu-WAY™ Direct Drive Roof Ventilators shall be tested and certified with industry test codes and guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

CONSTRUCTION — The fan assembly shall be housed in a plenum with a removable hood, complete with a reversible propeller, double orifice panel, and motor. The plenum section shall be constructed of 14-gauge steel for sizes 24" to 48" and 12-gauge steel for sizes 54" to 72", as standard. Hoods shall be constructed of heavy gauge galvanized steel for sizes 24" to 60", as standard. For size 72", hoods shall be constructed of 12-gauge painted steel, as standard. Hood mounting posts shall be welded at the top of the plenum section to support the hood. The hood shall pivot open or be removable. The motor base plate shall have struts welded to the fan housing.

The fan shall be constructed of the following optional metal:

- Aluminum
- 304 Stainless Steel
- 316 Stainless Steel

PROPELLERS — Propellers shall be A319 cast aluminum alloy and shall be capable of moving the same volume of air in either airflow direction. A split taper lock bushing shall be used to mount the propeller directly on the motor shaft.

MOTOR — Fan motors shall be foot mounted NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque type, suitable for operation on voltage, phase and hertz, as listed in the fan schedule. Motor bearings shall have a minimum L-10 life, as defined by AFBMA, of at least 40,000 hours (200,000 hours average life.) If motors have regreasable bearings, external grease fittings with extended grease lines shall be supplied for lubrication of the motor bearings.

BALANCING — The propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, direct drive fan propellers shall be balanced on the motor shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in./s)	Flexibly Mounted (in./s)
BV-3	0.15	0.20

FINISH — The unit, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and outside with an air dry enamel. The fan shall be coated with the following optional finish:

- Hot Dipped Galvanized
- Air Dry Epoxy
- Asphalt Based Coating
- Carbocoat 30 (replaces Sanitile 550 and Eisenheiss 210)

ACCESSORIES — The fan(s) shall be furnished complete with:

- Bird Screen
- Inlet Safety Screen
- Automatic Shutter-Exhaust End-Pivoted Shutter — For Exhaust Only
- Motor Operated Center-Pivoted Shutter — For Supply and Exhaust
- NEMA 3R Enclosure, Nonfused, Safety Disconnect Switch — Rain-proof / Sleet Resistant
- NEMA 4 Enclosure, Nonfused, Safety Disconnect Switch — Dust-tight / Water-tight
- Reversing Starter with NEMA 4 Enclosure, Fused Disconnect Switch and Control Transformer
- Prefabricated Roof Curbs: Type 1, Type 2, or Type 5; and flat, sloped or peaked
- Sound Curbs: Extended Curb, Recess Mounted, or Surface Mounted
- Fiberglass Hood Construction



Belt Driven/Belted

Tu-WAY™ Belt Driven/Belted Roof Ventilators, Models TWBD/TWB, as manufactured by Aerovent, Minneapolis, Minnesota, shall be of the size and capacity as indicated in the fan schedule. Tu-WAY™ Belt Driven/Belted Roof Ventilators shall be tested and certified with industry test codes and guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

CONSTRUCTION — The fan assembly shall be housed in a plenum with a removable hood, complete with a reversible propeller, double orifice panel, bearings, V-belt drive, and motor. The plenum section shall be constructed of 14-gauge steel for sizes 24" to 48" and 12-gauge steel for sizes 54" to 72", as standard. Hoods shall be constructed of heavy gauge galvanized steel for sizes 24" to 60", as standard. For size 72", hoods shall be constructed of 12-gauge painted steel, as standard. Hood mounting posts shall be welded at the top of the plenum section to support the hood. The hood shall pivot open or be removable, if necessary.

The Belt Driven unit motor/bearing base assembly shall be welded to the plenum exterior and shall have a motor cover as standard. The shaft and bearings shall be housed in an enclosed tube for protection from the airstream. The Belted unit motor/bearing base assembly shall be supported by struts welded to the fan housing.

The fan shall be constructed of the following optional metal:

- Aluminum
- 304 Stainless Steel
- 316 Stainless Steel

PROPELLER — Propellers shall be A319 cast aluminum alloy and shall be capable of moving the same volume of air in either airflow direction. A split taper lock bushing shall be used to mount the propeller on the fan shaft.

BEARINGS — The fan bearings shall be sealed pillow block bearings with grease lines brought to the outside of the fan housing to facilitate servicing. Bearings shall have a minimum L-10 life as defined by AFBMA of at least 20,000 hours (100,000 hours average life).

DRIVE — All drive selections shall have cast iron sheaves, static conducting belts and shall be designed with a 1.4 service factor, unless otherwise specified.

MOTOR — Fan motors shall be foot mounted NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque type, suitable for operation on voltage, phase and hertz, as listed in the fan schedule. Motor bearings shall have a minimum L₁₀ life, as defined by AFBMA, of at least 40,000 hours (200,000 hours average life.) If motors have regreasable bearings, external grease fittings with extended grease lines shall be supplied for lubrication of the motor bearings.

BALANCING — The propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, belt driven and belted fan propellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in./s)	Flexibly Mounted (in./s)
BV-3	0.15	0.20

FINISH — The unit, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and outside with an air dry enamel. The fan shall be coated with the following optional finish:

- Hot Dipped Galvanized
- Air Dry Epoxy
- Asphalt Based Coating
- Carbocoat 30 (replaces Sanitile 550 and Eisenheiss 210)

ACCESSORIES — The fan(s) shall be furnished complete with:

- Bird Screen
- Inlet Safety Screen
- Automatic Shutter-Exhaust End-Pivoted Shutter — For Exhaust Only
- Motor Operated Center-Pivoted Shutter — For Supply and Exhaust
- NEMA 3R Enclosure, Nonfused, Safety Disconnect Switch — Rain-proof / Sleet Resistant
- NEMA 4 Enclosure, Nonfused, Safety Disconnect Switch — Dust-tight / Water-tight
- Reversing Starter with NEMA 4 Enclosure, Fused Disconnect Switch and Control Transformer
- Prefabricated Roof Curbs: Type 1, Type 2, or Type 5; and flat, sloped or peaked
- Sound Curbs: Extended Curb, Recess Mounted, or Surface Mounted
- Fiberglass Hood Construction

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