

Belt Driven Propeller Fans

PropMaster™



SYMBOL OF
QUALITY

Quality and Service that will Blow you Away!

Industry Leadership

Founded in 1938, Acme Engineering and Manufacturing Corporation is known worldwide as a leader in the manufacture of fans, blowers, and ventilation equipment. Acme's growth over the past half century is a tribute to superior quality, customer loyalty, and dedicated employees and sales representatives.

Today, from its headquarters in Muskogee, Oklahoma, Acme serves customers worldwide with high quality air movement and control products.

Manufacturing

With approximately 350,000 square feet of manufacturing space, Acme produces one of the broadest lines of air moving equipment in the industry. State-of-the-art manufacturing equipment and a well trained, experienced workforce is the key to Acme's timely delivery of quality air moving products.

Engineering

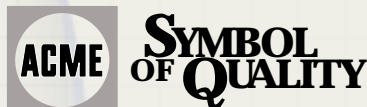
The Acme Research and Engineering Center operates both air and sound laboratories. The Center houses four wind tunnels with a data acquisition system, a reverberant sound room with the latest sound analyzer equipment, and a structural laboratory for stress and vibration analysis. Solid modeling, and finite element analysis support product research and development. The Center also houses a fully equipped prototype facility enabling Acme to develop and introduce new products to the market in the shortest time possible.

Sales & Service

A factory trained, knowledgeable sales organization addresses the needs of many diverse and distinct markets. Customers around the world are serviced by a complete system of sales representatives, equipment distributors and local dealers supported by nationwide distribution centers and backed by a staff of sales and marketing professionals.

Quality

A highly trained engineering and production staff set the standard for dependable, quality air moving products. By using the latest computer techniques for research and design, and rigorous quality control standards Acme can offer one of the best warranty programs in the industry. Our exclusive 2/5 year limited warranty provides our customers with confidence...Year After Year.



CONSTRUCTION FEATURES

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For those air moving applications demanding unusual ruggedness and stable performance at higher static pressures.



Model K Series

All fans factory tested and shipped fully assembled.

FRAME

All welded construction. Deep rolled streamlined orifice for most efficient performance. Panel section of 42" thru 72" sizes reinforced with angle frame. Heavy wall steel tubing for greatest structural strength. *Designed to operate in any position.*

HEAVY-DUTY ALUMINUM PROPELLER

Circular-arc blades provide higher air flow capacity and smoother operation. Blades heavily reinforced. Propeller precision balanced on corrosion resistant coated shaft. Steel propeller available as option.

BEARINGS

Self-aligning unitary pillow-block ball bearings sized for high overload capacity and long trouble free operation. Pre-lubricated and double sealed requiring a minimum amount of maintenance.



MOTOR

Continuous duty type, shielded ball bearings. Mounted on rails for convenient belt adjustment. K fans should operate at 104° F (40° C) or less ambient temperature.

DRIVE

All fans furnished with heavy-duty static frequency oil and heat resistant V belts. Drives are 1 or 2 belt combinations depending on horsepower. Sheaves constructed of cast iron.

STANDARD FINISH

An acrylic epoxy is standard on the frame and orifice of all K fans and is optional on the aluminum propeller. It is a multi-purpose finish that provides resistance to many chemicals and corrosive agents. Metal surfaces are prepared prior to painting by an iron phosphate process (size 72 has a vinyl wash primer) for rust protection and bonding of the paint to the base metal.

ACRYLIC EPOXY COATING

Acrylic Epoxy finish is the standard finish for all K fans. Metal surfaces are prepared prior to painting by an iron phosphate process (72" has a vinyl wash primer).

WARNING! DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials, unless unit is specifically built for hazardous environments.



LICENSED RATINGS FOR SOUND AND AIR
Acme Engineering & Manufacturing Corp. certifies that the PROPMASTER® fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



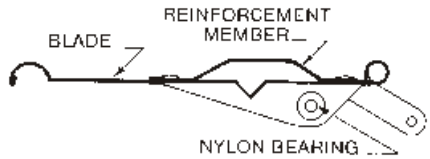
Most PROPMASTER fans are listed by the Canadian Standards Association Testing Laboratory as approved.

OPTIONAL ACCESSORIES

HEAVY DUTY WALL SHUTTERS

EXCEPTIONALLY QUIET Nylon bearings practically eliminate the rattle prevalent in ordinary shutters.

CONSTRUCTION Rigid corrosion resistant galvanized steel frame, double tie rods. Industrial weight aluminum blades reinforced with steel rods. Splash proof weather seal integral with frame. Counterbalanced blades open easier, permit higher fan capacity. Each blade has a formed reinforcement member providing triple strength and rigidity.



NYLON BEARINGS Utilizes rust resistant stainless steel hinge pins to insure easy positive blade action. Corrosion resistant, helps prevent shutter sticking. Suitable for dusty or humid applications. Tough, wear resistant, more years of trouble free operation.



Single Panel up to WAGH3737



Double Panel
WAGH4545 thru WAGH6060

Supply type fans utilizing a motorized wall shutter must have a time delay switch in the fan motor control circuit to allow the shutter to fully open before the fan is activated. A separate power relay is also needed to operate the fan motor. Order type WAGCH with motor operator for supply fans.

Fan Size	AUTOMATIC SHUTTER DIMENSIONS						
	Model	Ship Wt.		Shutter Opening Size		Overall Size	
		lbs.	kg	in	mm	in	mm
24"	WAGH3030	19	9	27 x 27	686 x 686	30 x 30	762 x 762
30"	WAGH3737	26	12	34 x 34	864 x 864	37 x 37	940 x 940
36"	WAGH4545	33	15	42 x 42	1067 x 1067	45 x 45	1143 x 1143
42"	WAGH5252	45	20	49 x 49	1245 x 1245	52 x 52	1321 x 1321
48"	WAGH6060	61	28	57 x 57	1448 x 1448	60 x 60	1524 x 1524
54"	WAGH6767	148	67	64 x 64	1626 x 1626	67 x 67	1702 x 1702
60"	WAGH7575	171	78	72 x 72	1829 x 1829	75 x 75	1905 x 1905
72"	WAGH9090	216	98	87 x 87	2210 x 2210	90 x 90	2286 x 2286

SAFETY GUARDS

Extruded aluminum framed guards model BA for back (motor side) and model FA for front of fan. Constructed of 1/2" x 1" mesh heavy gauge welded galvanized wire. Open on all sides for maximum air flow. Guards are shipped knocked down. Easily assembled with connecting clips. Bolts to fan frame. Easily removed for servicing fan. Guards are optional.



CAUTION! Guards must be installed when fan is within reach of personnel or within seven (7) feet (2.134 m) of working level or when deemed advisable for safety.



STEEL Channel quadrant frame ties four shutters together in a one piece assembly.

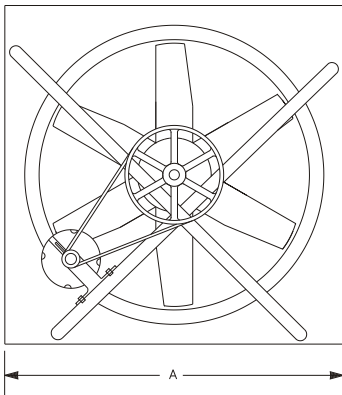
Quadrant Frame
WAGH6767 thru WAGH9090 (Shipped Knocked-Down)

DIMENSIONS

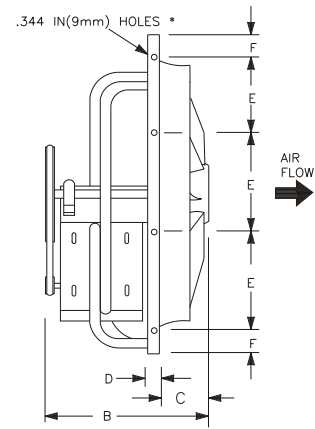
EXHAUST FAN DIMENSIONS

Fan Size	A		B		C		D		E*		F		Shaft Size	Metal Gauges	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		Orifice	Blades
															in
24	30.00	762	20.25	514	4.00	102	1.75	44	8.00	203	3.00	76	1.00	16	.125
30	37.50	953	26.00	660	5.75	146	1.75	44	10.00	254	3.75	95	1.187	16	.125
36	45.00	1143	25.50	648	5.75	146	1.75	44	12.00	305	4.50	114	1.187	16	.125
42	52.50	1334	30.00	762	5.00	127	2.00	51	15.00	381	3.38	86	1.437	16	.125
48	60.00	1524	30.00	762	4.50	114	2.00	51	16.00	406	6.00	152	1.437	14	.125
54	67.50	1372	30.75	781	5.00	127	2.00	51	15.00	381	3.75	95	1.437	14	.125
60	75.00	1905	34.50	876	6.00	152	2.00	51	16.00	406	5.50	140	1.687	14	.125
72	90.00	2286	35.00	889	5.75	146	2.50	64	18.00	457	9.00	229	1.687	14	.125

* K42 through K48 - 4 holes; K54 through K72 - 5 holes.



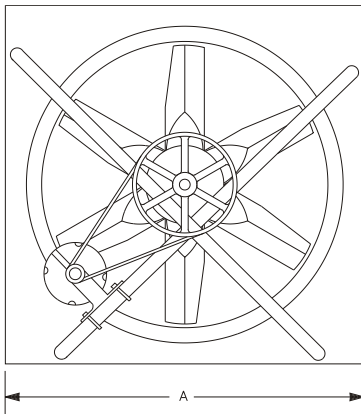
* .50 IN(13mm) HOLES ON 42 - 72



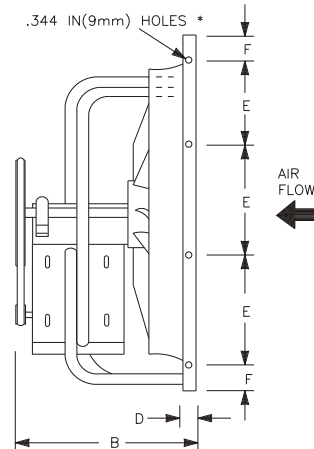
These are typical drawings for dimensional purposes only. They are correct within limits suitable for normal installation requirements and do not necessarily show actual construction.

SUPPLY FAN DIMENSIONS

Fan Size	A		B		D		E		F		Shaft Size	Metal Gauges	
	in	mm	in	mm	in	mm	in	mm	in	mm		Orifice	Blades
													in
24	30.00	762	25.00	635	1.75	44	8.00	203	3.00	76	1.00	16	.125
30	37.50	953	29.00	736	1.75	44	10.00	254	3.75	95	1.188	16	.125
36	45.00	1143	31.50	800	1.75	44	12.00	305	4.50	114	1.188	16	.125
42	52.50	1334	32.00	813	2.00	51	15.00	381	3.75	86	1.188	16	.125
48	60.00	1524	33.00	838	2.00	51	16.00	406	6.00	152	1.438	14	.125



* .50 IN(13mm) HOLES ON 42 AND 48



These are typical drawings for dimensional purposes only. They are correct within limits suitable for normal installation requirements and do not necessarily show actual construction.

TYPICAL SPECIFICATIONS

The all welded heavy duty wall exhaust fan shall be propeller belt drive type, designed to operate in any position.

The precision balanced **propeller** shall be all aluminum with die-formed circular-arc airfoil blades attached to a special die-formed spherical hub or to a special cylindrical hub.

The acrylic epoxy finish fan **housing** shall be constructed of heavy duty steel with heavy wall steel tubing structural frame and a deep rolled streamlined orifice for increased efficiency.

Pre-lubricated double sealed unitary pillow block bearings shall be used for accurate alignment and are rated at a L-50 life of 200,000 hours. Bearings shall have external lubrication fittings.

Sealed ball bearing **motors** shall be adjustable on the motor slide rail base for belt adjustment.

Drives shall be cast iron pulleys with static frequency oil and heat resistant belts and shall be designed for 1.5 service factor. The fan shaft shall have a coating for resistance against corrosion.

All fans shall bear the **AMCA Certified Ratings Seal** for sound and air performance.

Each fan shall have a permanently affixed manufacturer's **nameplate** containing the model number and serial number for future identification.

Thermal overload protectors shall be standard on all single phase ($\frac{1}{4}$ through $1\frac{1}{2}$ HP) totally enclosed and all EP (explosion resistant) motors.

Fans shall be model K as manufactured by Acme Engineering and Manufacturing Corporation of Muskogee, Oklahoma.

Because of constantly changing developmental research, Acme must reserve the right to change specifications without notice.

OPTIONAL COATINGS

Painted Finishes Aluminum and galvanized components remain unpainted as a standard finish, but when required, are processed through the finishing system to apply decorative or special coatings. A high turbulence oven is used to produce a baked on finish for most special coatings. Decorative coatings are air dried.

Special Coatings Products receiving special coatings have components painted before assembly. Fasteners are not painted.

Acrylic Epoxy This product provides a more durable surface.

Heresite (Air Dry) A phenolic coating with greater resistance to most organic and inorganic acids.

<p>Note: For any coating selected, the user assumes the responsibility for the ultimate effect on the coating and equipment due the corrosive agent, its concentration, temperature and moisture content.</p>
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PERFORMANCE DATA

FAN SIZE	Fan Model	FAN RPM	HP	LICENSED CFM, SONES VS STATIC PRESSURE																Max. BHP ◆			
				.000		.125		.250		.375		.500		.625		.750		1.000			1.250		
				CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones		CFM	Sones	CFM
24"	K24F	950	1/2	5300	17	4850	20	4210	22	2820	23												.39
	K24G	1090	3/4	6080	21	5700	23	5200	26	4500	29												.58
	K24H	1250	1	6980	24	6640	27	6250	31	5760	33	3000	29										.85
	K24J	1375	1	7670	26	7370	28	7020	32	6640	35	6170	38	4060	37	4570	40						1.12
30"	K30G	748	1/2	8220	19	7450	21	6430	24	4200	25												.56
	K30H	856	3/4	8780	23	8170	25	7270	27	5940	30												.83
	K30J	942	1	9660	25	9120	27	8430	32	7340	34	5930	38										1.09
	K30K	1078	1 1/2	11060	33	10590	37	10060	41	9320	43	8320	45	7170	48	5580	53						1.62
	K30L	1187	2	12170	35	11750	39	11300	44	10740	47	9940	49	9020	51	7970	54						2.15
36"	K36J	698	1	13150	20	12200	21	11000	24	9300	34												1.07
	K36K	799	1 1/2	15050	24	14250	26	13350	27	12150	33	10450	44										1.59
	K36L	880	2	16580	26	15950	25	15150	27	14200	32	12900	41	11200	50	13650	68						2.13
	K36M	1007	3	18970	32	18400	32	17700	33	17000	35	16050	41	15000	48	13650	68	16700	78	13600	88		3.17
	K36N	1193	5	22480	43	22000	42	21450	42	20850	45	20200	47	19500	54	18800	59						5.24
42"	K42K	620	1 1/2	18440	23	17300	24	15750	30	13600	35												1.58
	K42L	683	2	20310	26	19200	27	17900	32	16250	37	13900	46										2.11
	K42M	781	3	23230	35	22350	34	21250	38	20000	44	18500	48	16500	50	13300	45						3.15
	K42N	926	5	27540	68	26750	60	25900	64	25000	69	24000	70	22800	65	21400	67	17300	71				5.23
48"	K48K	511	1 1/2	21550	29	19600	33	17100	32														1.60
	K48L	562	2	23700	34	21900	35	19800	34	17200	35												2.13
	K48M	643	3	27120	39	25600	39	23900	39	21800	39	19200	43										3.17
	K48N	763	5	32180	57	31100	61	29800	65	28400	66	26600	63	24600	64	21200	66						5.29
	K48P	874	7 1/2	36870	66	35900	66	34800	66	33700	65	32400	65	31000	65	29300	66	23000	76				7.94
54"	K54K	421	1 1/2	25200	24	22600	24	18900	25														1.60
	K54L	463	2	27710	28	25400	28	22300	28														2.12
	K54M	530	3	31720	35	29600	35	27400	35	24300	36												3.17
	K54N	628	5	37590	47	35700	47	33900	47	31800	47	29300	48	25900	53	31700	63						5.27
	K54P	719	7 1/2	43030	60	41600	60	40100	60	38500	60	36400	60	34400	61	31700	63	31800	80				7.91
	K54R	792	10	47400	71	46000	71	44800	71	43300	70	41800	70	40000	71	38000	71						10.56
60"	K60L	389	2	31850	25	28600	25	24600	27														2.12
	K60M	445	3	36440	32	33700	32	30500	32	25900	35												3.16
	K60N	528	5	43230	43	41000	42	38500	42	35600	43	31900	46										5.26
	K60P	604	7 1/2	49450	54	47500	54	45500	54	43200	54	40700	55	37500	57								7.89
	K60R	665	10	54450	65	52700	65	50700	65	48700	65	46400	65	43800	66	41000	67						10.53
	K60S	761	15	62300	83	60800	83	59200	82	57500	82	55600	82	53800	82	51600	82	46800	85				15.77
72"	K72M	329	3	46360	27	42000	27	36000	29														3.15
	K72N	390	5	54950	36	51300	36	47500	36	41400	38												5.25
	K72P	447	7 1/2	62980	46	59700	46	56200	45	52200	46	47400	48										7.90
	K72R	492	10	69320	54	66300	54	63400	54	59900	54	55900	55	50800	58								10.52
	K72S	563	15	79330	70	76900	69	74200	69	71500	69	68200	70	64700	70	60700	72						15.77

Performance shown is for Installation Type A - Free Inlet, Free Outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating (BHP) does not include drive losses.

stream over the motor. The motor loading beyond the motor nameplate rating on Acme built fans does not overheat the motor and is within NEMA recommended limits. It is therefore not detrimental to the motor and is economically desirable.

The sound ratings shown are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan sone levels.

Models numbers shown are for Exhaust Fans with standard direction of air flow (motor on intake side of propeller). To order Supply with direction of air flow reversed (motor on discharge side of propeller) add letter "R" to Model number. EXAMPLE: K-R54L. K54, 60 & 72 not available as supply type.

◆ MAX BHP: The brake horsepower capability of a fan motor is dependent on the degree of cooling the motor receives from the moving air

WEIGHTS

FAN SIZE	FAN MODEL Exhaust	Est. Unit Weight		Est. Ship Weight*		FAN SIZE	FAN MODEL Exhaust	Est. Unit Weight		Est. Ship Weight *		FAN SIZE	FAN MODEL Supply	Est. Unit Weight		Est. Ship Weight*		FAN SIZE	FAN MODEL Supply	Est. Unit Weight		Est. Ship Weight	
		lbs.	kg.	lbs.	kg.			lbs.	kg.	lbs.	kg.			lbs.	kg.	lbs.	kg.			lbs.	kg.	lbs.	kg.
24"	K24F	106	48	152	69	48"	K48K	258	117	455	206	24"	K-R24F	111	50	157	71	48"	K-R48K	265	120	502	213
	K24G	110	50	156	71		K48L	264	120	461	209		K-R24G	115	52	161	73		K-R48L	271	123	468	216
	K24H	113	51	159	72		K48M	344	156	541	245		K-R24H	118	53	164	74		K-R48M	401	182	548	252
	K24J	131	59	177	80		K48N	364	165	561	254		K-R24J	136	62	182	83		K-R48N	371	168	568	261
						K48P	425	193	622	282													
30"	K30G	144	65	197	89	54"	K54K	376	171	585	265	30"	K-R30G	150	68	203	92	30"	K-R30K	188	85	241	109
	K30H	147	67	200	91		K54L	382	173	591	268		K-R30H	153	69	206	94						
	K30J	165	75	218	99		K54M	449	204	658	298		K-R30J	171	78	224	102						
	K30K	176	80	229	104		K54P	472	214	681	309		K-R30K	182	83	235	107						
	K30L	182	83	235	107		K54R	529	240	738	335		K-R30L	188	85	241	109						
						583	264	792	359														
36"	K36J	206	93	276	125	60"	K60L	498	226	769	349	36"	K-R36J	214	97	284	129	36"	K-R36K	325	148	305	138
	K36K	217	98	287	130		K60M	525	238	796	361		K-R36L	300	136	300	136		K-R36M	257	117	327	148
	K36L	222	101	292	132		K60N	545	247	816	370		K-R36N	277	126	347	158						
	K36M	249	113	319	145		K60P	597	271	868	394												
	K36N	269	122	339	154		K60R	653	296	924	419												
						K60S	724	328	995	451													
42"	K42K	226	103	391	177	72"	K72M	715	324	1028	466	42"	K-R42K	231	105	396	180	42"	K-R42L	235	107	400	182
	K42L	230	104	395	179		K72N	735	333	1048	475		K-R42M	320	145	485	220						
	K42M	315	143	480	218		K72P	805	365	1118	507		K-R42N	340									

CENTRIFUGAL EXHAUSTERS



CEILING AND CABINET EXHAUSTERS



IN-LINE CENTRIFUGAL FANS



IN-LINE AXIAL FANS



PROPELLER ROOF FANS



PROPELLER WALL FANS



UTILITY BLOWERS



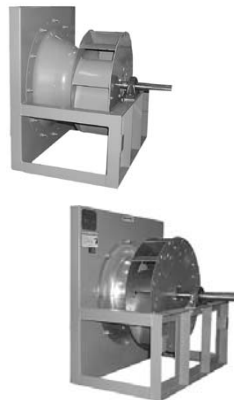
SUPPLY AIR FANS



ROOF VENTS



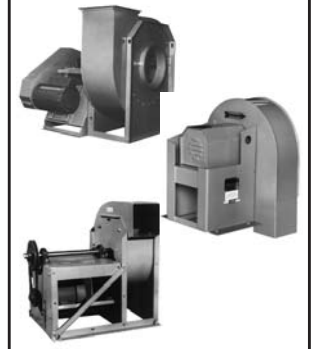
PLENUM FANS



BACKWARD INCLINED/AIRFOIL CENTRIFUGAL FANS



CENTRIFUGAL INDUSTRIAL EXHAUSTERS



LIMITED WARRANTY Acme Engineering and Manufacturing Corporation extends this limited warranty to the original purchaser and warrants that products described herein shall be free from original defects in workmanship and materials for two years from date of shipment (except for Acme's exclusive duplex split pillow block bearings and shaft 5 years from shipment, belts one year from shipment, and polyethylene tubing at 90 days from shipping), provided same have been properly handled, stored, installed, serviced, maintained and operated. Refer to Form MS149 for complete limited warranty terms and conditions. This form is available to anyone at www.acmefan.com. The Company's warranty is in lieu of all other warranties, express or implied, arising by law or otherwise, including without limitation the implied warranties of merchantability and fitness for a particular purpose, which are hereby expressly disclaimed and waived.

Acme products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the Purchaser and End User. If these products are used in a life support ventilation system where failure could result in loss or injury, the Purchaser and End User should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

WARNING DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments. Comply with all local and national safety codes including the National Electrical Code (NEC) and National Fire Protection Act (NFPA). Guards

must be installed when fan is within reach of personnel or within eight (8) feet (2.5 m) of working level or when deemed advisable for safety.

DISCLAIMER The Company has made a diligent effort to illustrate and describe the products in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose.

INDEMNITY Purchaser acknowledges various warnings by the Company regarding the products and its installation and use. If the Company incurs any claims, lawsuits, settlements, or expenses (including attorney fees) for any loss, injury, death or property damage including, but not limited to, claims arising out of the Purchaser's or any end user's installation or use of the products, the Purchaser shall indemnify and hold the Company harmless.



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